Lectures
ON
CONTRACTIONS OF THE FINGERS AND TOES; THEIR VARIETIES, PATHOLOGY, AND TREATMENT.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE II.

CONTRACTIONS OF THE FINGERS (CONTINUED).

FINGER contractions of cutaneous origin are perhaps always due to cicatrices following burns, or other traumatic injuries, or destructive diseases of the skin. It has been pointed out that although the skin is usually more or less involved in true Dupuytren's contractions, its structure is practically unchanged, and that the loss of elasticity often present is a result of its deep connexions with the morbid fibrous tissue characteristic of the affection. A contraction due to congenital imperfection of development of the skin has been described by Vogt, but it is doubtful whether the integumentary change is the primary or essential lesion. Cicatricial deformities of the digits are often of a very distressing character, and especially those which prevent opposition of the thumb to the fingers. When the joints are not destroyed, the utility of the member may generally be restored by well-devised plastic measures, the new material being borrowed either from a convenient portion of the adjacent healthy integument, or from the chest or some other part at a distance; but it is useless to lay down laws in detail for the treatment of these conditions, as the variations in the extent and position of the loss of substance are so great that only the ingenuity of the operator can guide him in the application of the general principles of plastic surgery to any individual case.

2. *Contraction of the fingers due to developmental irregularities in the bony and ligamentous elements of the articulations.*—There are certain affections of the fingers which have hitherto attracted little notice, but are interesting on account of their relationship to deformities of much greater frequency in the lower extremity. These are conditions of abnormal flexion and lateral deviation of the phalanges at the inter-phalangeal articulations. The first corresponds exactly to the well-known deformity of the foot called "hammer toe," and may be designated by a similar term.

Hammer finger is not a rare complaint, although much less familiar, possibly because much less troublesome, than hammer toe. It may be defined as an abnormal or permanent flexion of one or more digits, nearly always at the first or second inter-phalangeal joint, and unassociated with inflammatory or degenerative disease in the articular structures, or with any paralytic or spastic phenomena in the muscles. It is strictly limited in onset to the developmental period, but may manifest itself at any time between birth and adult life, and is possibly congenital in some instances. It is more common in girls than in boys. The digit most frequently attacked is the little finger, and the first inter-phalangeal joint is more often affected than the second. It is usually symmetrical. The contraction is slow, progressive, and painless, and becomes arrested spontaneously at any degree of flexion, but seldom goes beyond an angle of 90°. The joint cannot be extended by any ordinary force except in the earliest stage, and even then the bent position is immediately resumed after the cessation of the effort. Flexion, on the other hand, is complete and of fair power. No alteration is produced in the deformity by flexion of the wrist, a fact which proves that the main obstacle to extension does not lie in the tendons. There are no contracted fascial bands, and, as a rule, the skin is normal, but occasionally a small longitudinal fold may be present in the angle of flexion. In rare instances the resistance to extension is capable of yielding suddenly with a spring-like action, and a similar movement recurs as the joint is replaced in the position of flexion. These cases are usually classed with the condition known as "trigger finger." The contraction also occurs in the metacarpo-phalangeal joint, but very rarely attains a degree that causes it to attract the attention of patient or surgeon. In 800 children examined at the Central District School by Dr. Litteljohn and myself, this affection was found seven times—five times in girls, twice in boys, the ages of the subjects ranging between eight and fourteen. In all these the deformity was confined to the little finger, and in six cases it was bilateral. The first inter-phalangeal joint was affected in ten, and the distal joint in three of the thirteen digits. The angle of flexion, measured from the prolonged metacarpal axis, ranged between 20° and 80° in the different cases. A contraction of less than 20° was frequent, but the deformity was so slight that the cases were not recorded as pathological. Besides these examples, I have met with five cases in adult women, in whom the defect is said to have originated in early childhood. The little finger was affected in all, but in one the ring finger was also involved, and in the remaining case the middle finger also. Only the last was unilateral. In the milder degrees of contraction no special inconvenience resulted; but when an angle of 90° was attained, the use of the hand was seriously interfered with. The following case may serve as a type of the more troublesome forms.

G. B——, a domestic servant aged twenty-two, was admitted into St. Thomas's Hospital in June, 1889, with contraction of the third, fourth, and fifth fingers of the right hand at the first inter-phalangeal joints. The patient, a strong, healthy girl, quite free from neurotic tendencies, stated that her little and ring fingers had been contracted from early childhood, and that the condition had increased slowly but progressively to the present time. The middle finger became similarly affected about five months before admission. She had never suffered from pain and the parts had been free from all sign of inflammation; the deformity, however, caused very great inconvenience in her occupation. Two months before admission an attempt had been made to relieve the flexion of the little finger by subcutaneous section of the fascia, with the result of inducing a traumatic contraction of the metacarpo-phalangeal joint. The family history was negative. On examination the little finger was found to be flexed at an angle of 90° at the first inter-phalangeal joint, and the metacarpo-phalangeal joint was bent at an angle of 120° by cicatricial contraction of the skin and subcutaneous tissue (the result of the operation alluded to). The ring finger was flexed at the first inter-phalangeal joint to about 110°, and the middle finger at the corresponding articulation to about 150°. In the case of the inter-phalangeal joints, the movements in the direction of flexion were quite free and of normal power, but extension was strongly resisted by ligamentous tension at the points named. No increase in the movements was gained by flexion of the wrist. A first operation was undertaken for the relief of the cicatricial contraction at the proximal joint of the little finger. The tense integumental band was divided, and the joint straightened. A flap was then dissected from the ulnar side of the digit opposite the point of incision, and then twisted into the gap. (See Lecture I, Fig 4.) The wound united by first intention, and the result was permanent. A week later an operation was performed upon the first inter-phalangeal articulation of the same finger. The lateral ligaments were divided subcutaneously near their proximal attachment, and it was found that the joint could then be straightened by the use of moderate force; but the contraction was reproduced on the discontinuance of the extension by the elastic tension of the flexor, except during flexion of the wrist. The hand was placed upon a splint. The patient did not bear restraint well, and left the hospital. She has since been lost sight of.

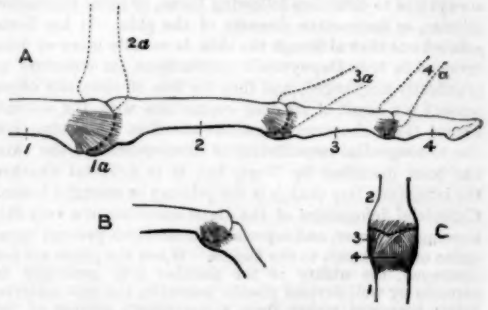
Remarks.—There is little doubt in this case that the primary contraction was due to imperfect evolution of the ligaments, and that the shortening of the tendons was secondary. The reason for accepting this order of phenomena is that a pure myogenic contraction does not lead to changes in the joint structures; because the articulations are capable of full extension when the flexor tendons are relaxed by bending the wrist, and hence the limitation of movement is not constant. On the other hand, in a permanent contraction of a finger-joint occurring during the period of active growth the flexors are never stretched to their full extent, and consequently do not undergo their normal longitudinal development. Should such a contraction, however,

originate in adults the case is different, as muscle and tendon show very little disposition to undergo active involution in the direction of their length after their complete development is attained; and hence in Dupuytren's disease the tendons do not impede the complete extension after division of the abnormal bands. This law, that joint contractions commencing in youth lead to shortness of muscle tendon, while those beginning in adult life do not, is worthy of the attention of the surgeon.

Pathology.—The affection is of considerable pathological importance, because it offers a simple test case by which many other questions of larger moment may be decided. It has been demonstrated that the permanent obstacle to extension of the contracted joint is to be found in the ligaments. There is no evidence of either muscular or nervous impairment or of any inflammatory changes in or about the joint; the process of contraction is slow and painless, and the condition always originates and progresses to its maximum during the term of active growth. In order to understand the significance of the complaint, it is necessary to dwell upon some facts in digital anatomy and physiology that have not received the attention they deserve. If we examine a number of hands, it will be found that, strictly within physiological limits, there is a remarkably wide variation in the range of movement at the phalangeal articulations in different individuals, and it requires but a small departure outside the physiological limits of variation to constitute the pathological deformity under consideration. The results of my own observations are as follows:—1. At each of the digital joints the distal bone, starting from the position of extreme flexion, passes through a variable number of degrees before it reaches the point at which it is arrested by tension of the ligaments. In the metacarpo-phalangeal joint the angle formed between the two bones during extreme flexion is usually about 80°, and the entire extending movement from this point may be represented in the healthy hand by any number of degrees between 90 and 190. That is, in one person the motion is arrested a little before the axis of the phalanx reaches a line with that of the metacarpal bone; in another it may be possible to continue the extension until the two bones form an angle with a dorsal opening of 90°. At the first inter-phalangeal joint there is a similar, but less extensive, variation. The extreme flexion angle is 60° or 70°, and the full extension may be checked as soon as the axes of the two bones are in the same line (frequently a little before this point is reached), or may be carried on 30° beyond. In the distal joint the flexion angle is about 80°, and extension may be checked when the two bones are in the same line, or may be capable of continuation for 40° or more. In the thumb the range of movement at the metacarpo-phalangeal joint varies from 80° to 170°, and at the inter-phalangeal joint from 90° to 120°, in different persons—i.e., the physiological variation in the two articulations is 90° and 30° respectively. The diagram (Fig. 5) may help to render this clear. It is not only in different individuals that such variations are apparent, but the fingers of the same hand and corresponding fingers in opposite hands may differ from each other to a marked degree in range of extension. The power of superextension, if extreme in childhood, frequently undergoes great diminution before adult life is attained, but in many cases it is permanent. These peculiarities are matters of common observation, and popular expressions have even been coined to represent the extremes in the range of variation. Thus a person who is able to bend his joints backwards to a conspicuous degree is said to be "double-jointed," and one who cannot extend them beyond the straight line is called "stiff-jointed;" and it is well known that "double-jointedness" and "stiff-jointedness" run in families, and in some cases may be traced through several generations. In myself, for example, the metacarpo-phalangeal joints of the index and middle fingers of the right hand are "stiff," while those of the left are capable of a superextension of 45° beyond the metacarpal axis; and precisely the same condition was present in my father, and has been transmitted to my son.

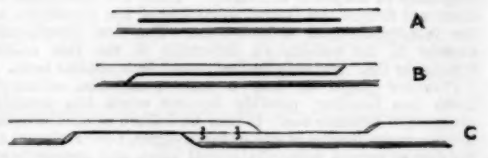
It may be of advantage to describe the articular structures of one of the finger-joints somewhat in detail. The capsule of an inter-phalangeal joint is formed on the dorsal aspect by the expansion of the extensor tendon, reinforced by the transverse fibres (the ligamenta dorsalia of Henle), which bind the tendon to the bone and lateral ligaments; on the palmar surface of the articulation is a glenoid plate of fibro-cartilage firmly attached to the anterior border of the distal bone, but very feebly connected with the neck of the proximal bone, and fused intimately with the anterior fibres of the lateral ligaments; lastly, at the sides of the joints are the radial and ulnar lateral ligaments, the attachments of which it is important to study closely, as they are often imperfectly described in anatomical text-books. The fibres of each lateral ligament are attached above to a little tubercle at the side of the head of the first phalanx, and from this point they radiate in a fan-like manner—the more posterior passing to the sides of the base of the second phalanx, the rest blending with the glenoid plate, and through the intermediation of this are connected with the anterior border of the base of the distal bone, decussating to some extent with fibres of the opposite ligament. (Fig. 5, C.) The strongest part of the glenoid plate, in fact, is made up of these ligamentous fibres; and it is these which, relaxed in flexion, become progressively more and more stretched during extension, and at length by their tension bring the movement to a close, but as already shown, the point at which the maximum tension is reached varies

FIG. 5.



A, Skeleton of finger with lateral ligaments. 1, Metacarpal bone. 1a, Anterior fibres of lateral ligament blending with glenoid plate. 2, Metacarpal phalanx; extension checked by short anterior fibres of lateral ligament (1a) at line of metacarpal axis. 2a, Super-extension permitted when 1a long. 3 and 3a, Middle phalanx under conditions similar to 2 and 2a. 4 and 4a, Ungual phalanx.—B, Hammer finger; extension at first inter-phalangeal joint arrested by imperfect longitudinal development of anterior fibres of lateral ligament.—C, Palmar aspect of first inter-phalangeal joint (left middle finger). 1, Metacarpal phalanx. 2, Middle phalanx. 3, Anterior fibres of lateral ligament. 4, Glenoid plate.

FIG. 6.



DIAGRAMS SHOWING METHOD OF TENDON LENGTHENING.
A, Tendon split longitudinally. B, Section completed by incisions at extremities of fissure. C, Divided tendon elongated and sutured.

to a large extent in different individuals. The physiological variations in the range of movements are then to be explained by variations in the relative length of the anterior fibres of the lateral ligaments. The ideal constitution of a joint depends upon the existence of a certain ratio between the growth of bone and that of ligament. Should the ligaments grow in excess, their redundant length will permit great superextension, and may even cease to check the movement; but if the bone grow relatively faster than the ligaments, the anterior portion of the latter will the sooner become tense during extension, and where this disproportion is exceptionally great the motion may be checked before it attains physiological completeness, and the result is a "hammer finger." Irregularities of development are most likely to occur in those joints which, for one or other reason, have the least functional activity. In the hand the little finger is apt to be much less powerful than its fellows; and in association

with this it may often be noticed that the fourth tendon of the flexor sublimis is reduced to a mere thread; in the foot the same thing is observed in the corresponding digit, but in a more marked degree, and it is the little toe which is most liable to the "hammer deformity." We may then define hammer finger as the result of a developmental irregularity of the first or second inter-phalangeal joint (rarely of the metacarpo-phalangeal joint) by which the anterior fibres of the lateral ligaments become prematurely tense during extension, and so check that movement before it attains its normal physiological limit. It is precisely analogous to hammer toe; but it is of less frequency than the latter affection, because while civilisation sedulously cultivates the freedom and precision of action in the finger, it invents ill-devised foot-coverings to repress the natural play of the toes. The tendency to the deformity may be transmitted by descent through an indefinite number of generations.

Diagnosis.—Spurious hammer-finger, like false hammer toe, may occur from—(1) articular lesions in rheumatism, rheumatoid arthritis, gout, or tuberculosis, or as a result of inflammations of traumatic origin, or (2) from interference with the muscular functions by paralysis of the extensors or by spastic contraction of the flexors. In the first group the joint will be found in a more or less complete state of ankylosis, movements in all directions being impeded. In the second group the articulation, although contracted, is freely mobile under passive force, unless, as in some congenital paralyses, irregularities of development in the articulations be superadded.

Treatment.—The treatment of hammer finger is a far less simple problem than that of hammer toe, because in the latter the sacrifice of the movements of the affected articulation does not sensibly impair the functions of the digit, while in the fingers an ankylosis of the first inter-phalangeal joint in the position of either flexion or extension would be more inconvenient than the ligamentous contraction. The measures available are (1) passive movement, (2) subcutaneous section of lateral ligaments, with or without tendon lengthening, and (3) amputation. In the milder cases a persevering use of passive motion will in time effect a cure; but when the contraction has reached an advanced degree it may be impossible to make an impression by this means. We may then divide the lateral ligaments, and keep the fingers straight by means of extension splint, while the tendons are relaxed by flexion of the wrist, trusting to subsequent massage and passive motion, or, failing this, to tendon lengthening (by a process to be described later), to overcome the resistance of the shortened muscles. Section of tendons within the theca is useless, because the divided ends do not unite. As a last resource, amputation may be demanded to remove a useless and inconvenient member.

Lateral versions of the phalangeal joints.—Lateral versions of the fingers are intimately associated with hammer finger in pathology, and the two distortions are sometimes combined. The lateral inclination, which seldom exceeds 25°, may affect either of the inter-phalangeal joints, but is more frequently in the distal phalanx. Like the "hammer" deformity, it is usually found in the little finger, and is symmetrical. The version is nearly always towards the radial side, and the movements of the joint are little impaired. Amongst 800 children in the Hanwell School were found six cases, of which five were double and affected the little fingers, the sixth being in the fourth digit and unilateral; in two the version was associated with slight hammer flexion. It is occasionally seen in the index finger, and the version is then towards the ulnar side. The condition is rather unbecoming than inconvenient, and cases are seldom brought to the surgeon for relief. It is a result of irregularity of development, the condyle growing a little more rapidly on one side than on the other. The constancy of the radial direction of the version of the little finger is probably explained by the fact that any lateral pressure to which this digit is subjected is from the ulnar side, while in the index finger the pressure is more often from the radial side, and hence an ulnar distortion is here the more usual. The deflected joint may be straightened by the use for a few weeks of a narrow metallic side splint, jointed opposite the articulations. No operation is required. Exaggerated forms of lateral version at the articulations may occur in rheumatoid arthritis, gout, or chronic rheumatism, and in paralytic affections.

3. *Contractions arising from interrupted evolution of the flexors of the fingers without paralytic or spastic complications.*—This condition necessarily belongs to the pre-adult stage of development. It is characterised by persistent flexion of one or more digits, without any articular abnormality, and unassociated with spasm or paralysis. The degree of flexion varies with the position of the hand, and when the wrist is strongly bent forwards the fingers may be extended, perhaps completely, but extension of the wrist is accompanied by a return of the contraction, the degree of which increases progressively as the wrist extension is carried nearer to its limit. The power of grasp is little impaired. Any attempt to overcome the extension by violence is met by powerful resistance, and great pain is induced. If the patient be anæsthetised, the contraction remains unaltered, but the resistance is felt to be of a peculiar elastic character, and yields to a slight extent during the application of passive force. The defect leads to great interference with the functions of the hand. The pain caused by anything that tends to stretch the shortened muscles induces a voluntary exaggeration of the flexion, and after a time the control over the extensors is apt to become impaired. The causes are obscure, but the essential factor appears to be a trophic lesion of local or central origin, which retards or arrests the due growth of a muscle or a portion of a muscle without causing its atrophy or paralysis. The following cases will serve to illustrate the phenomena so far as they have come under my own observation.

CASE 1.—M. O——, a domestic servant aged seventeen, was admitted into St. Thomas's Hospital in September, 1889. On examination the third, fourth, and fifth fingers of the right hand were found to be flexed at the metacarpo-phalangeal and inter-phalangeal joints—the two latter strongly, the former slightly. When the wrist was fully extended the contraction became more marked and the distal phalanges of the ring and little fingers touched the palm, but when the wrist was fully flexed the fingers could be voluntarily brought into a state of complete extension. The power of grasp was good, although somewhat less than in the left arm; the bones were normal in form and size; and the joints were quite free in their movements when the flexors were relaxed by position. The forearm muscles appeared to be of normal size. A small scar was seen about two inches below the elbow, over the inner side of the front of the arm, the result of a fall thirteen years before. The patient was strong and healthy in appearance, and showed no sign of neurotic disorder. She had never suffered from rheumatism or any other severe illness, and the family history appeared to be good. She stated that the contraction began to appear in childhood, shortly after the injury to the arm, but that it had been making more rapid progress in the past eighteen months, during which she had been growing very quickly. After a fruitless attempt to improve the condition by passive motion and splint extension, neither of which was well borne, it was determined to lengthen the tendons by operation. On Oct. 18th, 1889, the patient was chloroformed, and it was observed that the deepest anæsthesia caused no relaxation of the contraction. A semicircular incision was made over the inner side of the front of the forearm just above the wrist, the convexity overlapping the tendon of the flexor carpi ulnaris, the horns reaching to a line midway between the radial and ulnar borders of the limb. The flap of integument and fascia was reflected towards the radial side, exposing the inner portion of the flexor sublimis. The tendon of this muscle going to the ring finger was then isolated, transfixed by a fine tenotomy knife, and split longitudinally for a distance of two inches. At each end of the fissure so made the tendon was divided in such a manner as to leave one-half of the split portion attached to the proximal, the other to the distal, end of the tendon. (Fig. 6) The tendon, a very slender one, to the little finger was similarly treated. The effect of this measure upon the contraction was very slight. The portion of the flexor profundus common to the middle, ring, and little fingers was then drawn out and divided after the same method, and the section was followed by immediate and complete extension of the digits. When the fingers were fully straightened, the ends of the divided tendons still overlapped each other to the extent of about a third of an inch. The overlapping portions of each tendon were then carefully sewn together by catgut sutures, the wound was closed and dressed antiseptically (without drainage), and the hand was placed upon a plaster-of-Paris splint; the wrist and fingers

being moderately flexed, in order that no undue tension should be thrown upon the united tendons. Healing took took place by first intention. At the end of a week the fingers were partially extended, and four days later the extension was made complete, the alteration of position on each occasion being effected without difficulty, and at the expense of little pain. In the middle of the fourth week after the operation a feeble power of flexion had appeared. The patient was discharged on Nov. 13th, twenty-six days after the operation. Two months later the condition had much improved, and the voluntary flexion, although still weak, was almost complete as to range. All the tendons had evidently united firmly. She was directed to wear an extension splint at night, and to practise active and passive movement at intervals in the daytime. At the end of a further three months the patient (who lived in Lincolnshire) came again to London. She had been growing taller in the interval, and said that the contraction had been gradually reappearing. On inquiry it was found that she had neglected her instructions as to extension and motion. Some slight return of the flexion had appeared in

FIG. 7.

Deformity in case of wound of ulnar nerve above wrist.

the ring and little fingers, and has since been steadily increasing, till it is now almost as great as when she first attended. She has made no adequate effort to oppose the retrogression, but has almost entirely discontinued to use the affected hand. She is still, however, able to move the fingers freely at all the joints. She desires to undergo another operation; but has been advised to obey the directions given to her after the first, and to wait until her growth is quite complete before any more active surgical treatment is undertaken.

Remarks.—The pathology of this case is very obscure. The contraction evidently depended upon a trophic lesion, perhaps due to the injury in childhood, involving the ulnar portion of the flexor profundus, impeding the growth of the muscle, and so preventing it from keeping pace with the normal growth of the bone, but not causing paralysis. The contraction of the sublimis was evidently secondary. The recurrence of the contraction may be explained by the progressively increasing length of the bones of the forearm, the muscle remaining stationary; in other words, the original cause of the condition—the incapacity of the profundus for development—persisted, and led to a return of the effect. Under these circumstances it would obviously be advisable to delay a second operation until the osseous system had reached its permanent proportions. The operation I believe to be original; and so far as the restoration of continuity of tendon is concerned, the result proved a complete success. It might possibly be applied with advantage in various conditions as a substitute for tenotomy.

CASE 2.—H. L——, a youth aged seventeen, was admitted as an out-patient at St. Thomas's Hospital, in November, 1890. He complained of a contraction of the thumb and fingers of the right hand of three years' duration. The condition began without apparent cause, and has increased progressively. He was fairly well grown, but of somewhat delicate aspect. He had an attack of rheumatic fever at the age of six, but had since been in good health. The contraction was of the same nature as that in Case 1, but less in degree, and involved all the digits. The hand was well formed, and all the bones, joints, and muscles were normal. The power of finger extension was complete during flexion of the wrist. The forearm flexors are rather small, but there is no distinct atrophy; the movements at the wrist, elbow, and shoulder are perfect. He said that the defect crippled him greatly for work, and that forcible extension caused pain in the forearm. He was instructed to carry out a system of massage, with active and passive movements of the fingers and wrist. When last seen, about two months ago, the condition was stationary.

4. *Contractions due to unbalanced action of the flexor muscles after rupture, division, or destruction of the extensor tendon.*—These accidents are not uncommon in ordinary hospital experience. The effect of such a solution of continuity over the back of the hand is to leave the first phalanx in a state of flexion, while the second and third phalanges may be voluntarily straightened without difficulty, especially if the metacarpo-phalangeal joint be passively fixed in the position of extension. The reason for this of course is that the common extensor, by virtue of its ligamenta dorsalia and its connexion with the aponeurotic fibres it derives from the interossei, acts with peculiar advantage upon the metacarpal phalanx, although it has no direct attachment to it, while its nominal "insertion" into the middle and ungual phalanges is subservient to the interossei and lumbricales, which are the true extensors of these bones. On the other hand, if the lesion fall just on the proximal side of the first inter-phalangeal joint, the first phalanx may be susceptible of almost complete voluntary extension; but the second and third phalanges are bent by the unopposed action of the superficial and deep flexors, because the influence of the true extensors, the lumbricales and interossei, has been cut off. In like manner, a division of the tendon over the middle phalanx leaves the terminal phalanx in the position of flexion; and a similar result follows the accident first described by Segond, in which the extensor tendon is torn away with a portion of the bone during forcible flexion of the ungual phalanx.

Treatment.—If the injury be seen in the early stage and there is no loss of substance at the point of lesion, it may be treated satisfactorily by fixing the finger, hand, and wrist in full extension, to allow the passive approximation of the divided extremities of the tendon; but should the case not come under notice until a later period it will be necessary to cut down and suture the tendon. If there is loss of substance and the two ends of the tendon cannot be brought together, the treatment must vary with the position of the injury. In some cases where the metacarpal portion of the tendon is involved, a good result may be obtained by joining the distal end to the adjacent tendon so as to bring it again within the control of the muscle, but if the digital portion be the seat of the lesion this is impracticable, and a remedy may be found by lengthening the tendon, either by splitting one or both ends and suturing the extremities of the portions detached, or by transplanting a portion of a tendon from a dog into the gap. As a last resource the traction of the flexors may be balanced by an elastic extension band replacing the destroyed tendon, and attached by one end to a little cap drawn over the finger, by the other to the dorsal aspect of a wrist gauntlet.

5. *Contractions arising from nutritive changes in the motor apparatus.*—There are at least three well-known forms of pathological change in the musculature of the forearm (independent of the ordinary paralytic or spastic conditions due to nerve lesions) that may give rise to contractions of the fingers. There are the ischæmic paralysis of Volckmann, inflammatory processes in the muscular sheaths, and gummatous formations, or more rarely other tumour growths in the muscles. (*a*) The affection described by Volckmann as muscular paralysis of ischæmic origin is now seldom met

with. It is a result of prolonged immobilisation of forearm fractures by any form of apparatus that intercepts the free circulation of blood through the muscles and nerves of the part. When the splint is removed the hand is found painful, dusky, and swollen, the fingers are bent like claws, and any attempt to extend them causes great pain. Volckmann believed that the nerves in these cases have preserved their power of conduction, but that the muscular fibres are structurally injured and have lost their excitability. The lesion is, however, seldom of a permanent character, and the function may generally be restored by systematic active and passive movements, with massage, and if necessary the use of a galvanic current. Its existence is a reproach to surgery, since a careful observation of the hand and fingers during the use of splints will always give due warning of the danger. (*b*) Diffuse inflammation of the intermuscular planes and perimysial connective tissue may occur as a result of poisoned wounds, and other injuries, and may lead to a like deformity in the fingers. In a case under my own charge it was caused by a sting in the forearm by an adder. The injury was followed by the usual pain and swelling, accompanied by a painful contraction of the fingers, which lasted for nearly three months, but was ultimately relieved by the measures recommended for the ischæmic paralysis. Wounds implicating the flexors may occasionally lead to permanent contraction—either as a result of actual loss of substance, or in young subjects from interference with the development of the muscle (as in the case already mentioned). Under these circumstances the operation of tendon lengthening may be required if the endeavours to secure gradual extension are unsuccessful. König describes a case of flexion of the hand and fingers in a newly born child caused by a tearing of the flexors at the moment of disengagement of the arm in the course of delivery. (*c*) Gammatous formations in the forearm flexors, causing painful contraction of the finger, are comparatively rare. A very interesting case of the kind is reported by Dr. A. G. Barrs in the *Medical Chronicle* for May last, and I am indebted to the author for permission to show the photograph and drawing produced. The muscle affected was evidently the flexor profundus in its ulnar portion; and the finger contraction, which bore a superficial resemblance to Dupuytren's disease, was complicated by other symptoms indicating a concomitant affection of a portion of the cord.

6. *Contraction of the fingers dependent upon a tendo-vaginitis of the bursal sheath of the flexor tendons*.—The following notes of an example of this somewhat rare condition under my observation at the present time may be of interest. The patient, a girl aged twenty, attended St. Thomas's Hospital for a swelling of the front of the right wrist, with contraction of the fingers and complete loss of use of the hand. She stated that the contraction appeared six days before without apparent cause. On examination a large swelling was found, extending upwards for about an inch and a half above the anterior annular ligament, and distally along the ulnar side of the palm as far as the root of the little finger. The phalangeal joints of all the fingers were flexed, and any attempt to straighten them caused considerable pain, while the movements of the little finger were accompanied by a peculiar coarse grating, that could be felt along the whole length of the theca and in the palm, ceasing, however, at the level of the carpus. The thumb was flexed and adducted, and the movements of flexion and extension were painful, apparently because they led to disturbance of the enlarged bursal sheath of the finger flexors. The affection is evidently a tendo-vaginitis involving the carpal bursal sheath of the finger flexors, and the palmar extension which brings this into communication with the digital bursal sheath of the little finger. The crepitation indicates that the intra-vaginal portion of the tendon is roughened by inflammatory deposits, and it is possible that these irregularities may lay the foundation for a subsequent trigger finger. The case is being treated by immobilisation of all the joints of the wrists and fingers in plaster-of-Paris. In a few days, as soon as the acute stage is passed, passive movement will be commenced.

A tendo-vaginitis of the extensors over the back of the hand may induce considerable functional impairment of the fingers, with more or less contraction at the metacarpo-phalangeal joints. Such a condition has been described by Vogt as an occasional result of gonorrhœa, and Verneuil has met it as a manifestation of syphilis. The majority of examples, however, occur without any ascertainable constitutional cause.

7. *Contractions dependent upon inflammatory and degenerative changes in the articular structures*.—The deformities induced by gout, rheumatism, and rheumatoid arthritis fall more directly within the domain of the physician, while those due to tubercular or traumatic lesions are of more immediate concern to the surgeon, but the characters which distinguish the various conditions from each stage are of interest for every practitioner. The chief points bearing upon diagnosis are as follows:—In the gouty form the personal and family history of the patient, the acute and painful nature of the local inflammatory attacks, the presence of urate of soda deposits in the part, and the evidence of similar disease in other portions of the body. In chronic rheumatism, which is more often present in women and in the poorer classes, the moderately painful attacks of synovitis with crepitation, and evidence of wearing away of cartilage. In chronic rheumatoid arthritis the presence of bony outgrowths around the margin of the articulation is the main element of distinction from the latter condition. In tubercular disease the personal and family history, the soft fusiform swelling, the tendency to breaking down of the morbid tissue, and the more or less complete destruction of the articular capsule in the later stages. Contractions with ankylosis may also occur in acute rheumatism and acute rheumatoid arthritis, and as a peculiar neuropathic condition simulating the latter. These will be referred to in connexion with the contractions of the toes. In the traumatic forms the history and marks of injury will usually be sufficient for diagnosis; but it must, of course, be recollected that common injuries, by weakening the resistance of the part, may localise the attack of a specific disease, such as tuberculosis or gout, and hence the onset of tubercular or gouty arthritis may coincide with an ordinary traumatism. It is, as a rule, only in the tubercular and traumatic forms that the surgeon is consulted. The treatment must, of course, be based on general principles; but it is necessary to recollect that an ankylosed finger-joint nearly always renders the digit worse than useless, and especially if the articulation be fixed in the position of extension.

It is only necessary to mention that contractions without joint lesion may occur in the fingers as a result of disease or injury of the bone. Simple fracture in the neighbourhood of an articulation may produce a deformity closely resembling that of dislocation. Caries or necrosis may also lead to a breach of continuity in the shaft of a bone, and various distortions may follow the cure of the disease.

(To be concluded.)

ON CONGENITAL CONTRACTION OF THE FINGERS AND ITS ASSOCIATION WITH "HAMMER TOE"; ITS PATHOLOGY AND TREATMENT.[1]

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GENERAL REMARKS.

CONGENITAL contraction of the fingers—in most cases limited to the little finger—has not hitherto attracted much attention, and is sometimes not even mentioned in surgical text-books. The reason for this is that the cases, although of common occurrence, are generally unimportant, and in the majority of instances this contraction does not give rise to trouble, although in exceptional cases, at a late period, it does become an important affection. No one thinks anything of a crooked little finger, and so commonly does it exist that a gentleman once remarked to me, "All our noses and little fingers are crooked." And this is undoubtedly the popular notion, in which is embodied a certain amount of truth.

CLINICAL HISTORY.

This affection had better be considered in reference to three distinct stages in which this contraction is found.

First stage.—Although this is undoubtedly a congenital and hereditary affection, no deviation is observed in the

[1] For abstract of this paper, read at the Medical Society of London Dec. 8th, 1890, see THE LANCET, Dec. 13th, 1890.

little finger at the period of birth, such as we see in congenital club-foot, for example, and other congenital muscular contractions. I do not think I have seen any case in a child under one year of age; but I have seen many cases in children between one and two years of age. The mothers, however, have assured me they have observed it a few months after birth. This form of finger contraction occurs chiefly in girls. The first indication observed is a dropping of the second and third phalanges of the little finger, with some inclination to turn laterally inwards towards the median line of the hand; the third phalanx is generally rather more flexed than the second. There is no evidence of muscular contraction; no contracted bands of fascia can be felt; no appearance of shortening of the skin on the palmar aspect of the fingers (see Fig. 1). The second and

FIG. 1.

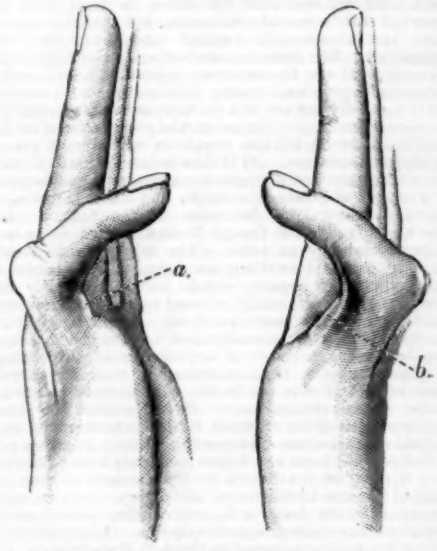
Congenital contraction of little finger in first stage, from a child three years of age.

third phalanges can be easily restored by gentle manipulation to a straight position with the first phalanx; but they drop again as soon as the extending power is removed. This is a remarkably close resemblance to what takes place in the first stage of hammer toe. The general characters described are well represented in Fig. 1, taken from a child aged three years.

Second stage.—This is essentially one of confirmed contraction, which takes place gradually if the malposition in the first stage has not been corrected by the child wearing a retentive metal splint. In this stage there is no evidence of muscular contraction, but some contracted bands of fascia can be detected in most cases. The second and third phalanges generally remain on the same line, and become more or less rigidly flexed upon the first phalanx, which is usually drawn backwards or hyper-extended, as shown in Figs. 2 and 3. The finger cannot be straightened by any moderate amount of force, and the resistance would seem to be partly in a contracted condition of the skin and fascia, and partly in the contracted condition, by adapted shortening during growth, of the articular ligaments. The transverse creases in the skin on the palmar aspect of the fingers corresponding to the phalangeal articulations become less distinctly marked; and the skin, somewhat atrophied and thin in appearance, seems to be short and contracted. This probably led my former colleague, the late Mr. Tamplin, to believe in congenital contraction of the skin being the cause of this malposition; but no doubt it is only one of the secondary effects of the contraction. This stage appears to be seldom reached under seven or ten years of age, and even then often attracts but little attention, only being regarded as a crooked family finger. Later on, however, it is found to interfere more especially with music, and further advice is sought, generally about the age of sixteen years.

Third stage.—When the congenital form of finger contraction has not been submitted to treatment in the first or second stage, spontaneous arrest may, and undoubtedly does, take place in many cases, as shown in Figs. 2 and 3, the deformity remaining throughout life without causing much inconvenience; but this cannot be relied upon, and in a certain proportion of cases increase of the contraction occurs at a late period—say, from fifteen to eighteen or twenty years of age,—and these cases present several remarkable peculiarities, so that I have described this period of increase as

FIG. 2. FIG. 3.



Congenital contraction of little finger in second stage. Patient aged twenty-nine years.

a third stage of the congenital contraction. In this stage the increase of the contraction is seldom confined to the little finger, but all the fingers become involved, as shown in Fig. 4; and there is evidence of fascial contraction of a

FIG. 4.

Congenital contraction of the fingers in the third stage. From a young lady aged seventeen years.

peculiar kind, differing widely from the fascial contraction met with in the better-known form of Dupuytren's finger contraction, as well as a further contraction and shortening of the skin. When this increase of the contraction commences, the second and third phalanges of all the fingers

begin to bend downwards, so that the hand quickly becomes less and less useful for any purpose, and in young ladies the piano has to be abandoned. It is soon found that the fingers cannot be straightened by any moderate force, and when the attempt is made the skin on the palmar aspect seems to be short and contracted. There is also some appearance of a central flat band of fascia about three-eighths of an inch in width, running lengthwise along the first and second phalanges. The margins of this band become tolerably well defined in the central portion of each phalanx, and expanding near to the articulations are gradually lost. This is well represented in Fig. 4. As this appearance of a central longitudinal band does not correspond to any natural distribution of the digital prolongations of the palmar fascia, which we know pass obliquely forwards and backwards towards the periosteum along the inner and outer margins of the sheath of the flexor tendons, its explanation seems to be difficult. It appears so me to be due to the terminal fibres of the fascia inserted into the skin becoming involved, and contributing to an appearance of skin contraction. I formed this opinion after the first operation I performed on one of these cases in the year 1885, when I found it necessary, after dividing some small bands transversely, to pass the knife horizontally under the skin and divide numerous bands passing upwards towards the skin. The appearances in this case are well represented in Fig. 6. In the little finger there is an appearance in many cases of a contracted lateral band of fascia, generally on the outer side, but I have seen it less distinctly marked on the inner side of the little finger. This lateral band, however, takes a longitudinal direction, as shown in Figs. 2, 3, and 6, and in this respect differs from the contracted lateral band in cases of Dupuytren's finger contraction, and has not the effect of drawing down the first phalanx, which is generally drawn backwards or hyper-extended. In a few cases the contraction increases to a severe degree, so that the second and third phalanges become bent upon the first at a right angle, without any appearance of a lateral band.

Opportunities of demonstrating by dissection the anatomical conditions in these cases must very seldom occur, but my colleague, Mr. Lockwood, dissected one which occurred in a young woman aged twenty-one, in whom both little fingers had been contracted from childhood, and in consequence of the increase of contraction during the last two years she was anxious to have the left little finger removed, an operation which Mr. Lockwood performed, having first tried a subcutaneous division of the fascia without benefit. The specimen was exhibited to the Pathological Society on Nov. 17th, 1885, and the report in the Transactions of the Society for 1886 states "it was found that the band in question consisted of a thickening of the digital fascia opposite the flexor aspect of the proximal inter-phalangeal joint. Except that it was thickened and shortened, the fascia was perfectly natural." The specimen is in the Museum of St. Bartholomew's Hospital, No. 1203, B. This period of increase, or the third stage, as I have described it, seems to occur more frequently in young ladies of a neurotic temperament, simultaneously with some loss of health from overwork at school, or natural inclination to study, independently of any constitutional tendency to gout or rheumatism, although I have known parents ascribe it to rheumatism and residence in cold and damp situations.

ETIOLOGY.

No satisfactory theory of causation of this peculiar form of finger contraction has yet been offered. It used to be thought to depend upon a congenital deficiency of the skin in the direction of the length of the finger—i.e., an inclination to a web in the length of the finger. My former colleague, Mr. R. W. Tamplin, the late senior surgeon of the Royal Orthopædic Hospital, in his lecture on "Contraction of the Fingers," observes:[2] "In the congenital form I have not witnessed a case that arose from contraction of the muscles. The cases that I have as yet seen have been occasioned by a deficiency of skin extending from the extremity of the metacarpal bones to the last phalanx. (Vide Fig. 54.)" This, by the way, is a good illustration of the ordinary form of congenital contraction, in the third stage, in a young adult, chiefly affecting the little finger; but the other three fingers are also somewhat flexed. It is remarkable that in the same lecture two excellent illustrations are given (Figs. 60 and 61) of a case which Mr. Tamplin considered to be a non-congenital contraction of the skin in the length of the fingers in an adult (see Fig. 5), but I have not

FIG. 5.

Case recorded by Tamplin as "non-congenital contractio of the skin."[3]

the least doubt that this was a congenital case, with fascial and skin contraction coming on at a late period. One of the exceptional class of cases I have described as reaching the third stage of this form of contraction, and an exact counterpart of this case, may be seen illustrated in Fig. 4. Against this theory it may be urged that there is no appearance of congenital skin contraction, or the formation of a longitudinal web in the finger when seen in early childhood. I have casts taken from young children that show the transverse creases on the palmar aspect of the phalangeal articulations as well defined as they naturally should be. At a later period, when the second stage—viz., that of confirmed contraction—has been reached, the skin appears to be short, and a longitudinal web becomes apparent when an attempt is made to straighten the finger. It is, I think, from cases in this stage that the opinion must have been formed, but I have no doubt that the skin contraction is a secondary affection, and with it also the terminal cutaneous filaments of the fascia become involved. The only defect which is apparent in the first stage is a dropping of the second and third phalanges (shown in Fig. 1), apparently from some failure of the power of extension, as in the first stage of "hammer toe," with which it is frequently associated; but whether this is due to any failure or imperfect development of the lumbricales and interossei muscles, whose special office it is to aid in the power of extending the second and third phalanges, I am unable to say. Should this be the case, it is worthy of remark that the power of extending the second and third phalanges is not permanently lost through life. If we examine a case in the second or third stage by fixing the first phalanx in the flexed position (as when the hand is clenched), and then ask the patient to extend the second and third phalanges, it will be found that he is able to do this, although the power is always feeble—in part no doubt from disuse. The patient, aged twenty-nine years, whose hands are represented in Figs. 2 and 3, has this power to a very useful extent as a wood engraver.

From the description given above, it will also be at once

[2] Lectures on the Nature and Treatment of Deformities, by R. W. Tamplin. London: Longmans and Co., 1846.

[3] In Fig. 5 the front and side views represented in Figs. 60 and 61, Tamplin, are combined to show the finger contraction as well as the central bands of fascia in front of the phalanges.

apparent that this congenital form of finger contraction is not in any way allied to Dupuytren's finger contraction, from which it differs in its etiology and general pathology; in being a congenital affection, whilst Dupuytren's contraction belongs to adult life; in affecting chiefly the female instead of the male sex; and also in its anatomical characters, and difference in the structures involved, as neither the central portion of the palmar fascia, nor its lateral digital prolongations, are ever involved in the congenital form. The first phalanx is therefore never drawn down, but as a rule is hyper-extended. With these differences are also corresponding differences in the principles of treatment.

(To be concluded.)

ON THE VALUE OF SUSPENSION IN THE TREATMENT OF TABES DORSALIS.

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IN this paper I propose to give the results of some observations undertaken with the object of determining the value of suspension in the treatment of tabes dorsalis, and the mode in which it should be carried out in order to obtain the best results. The different observations cover the period extending from March 1st, 1889, to June 1st, 1891, so that sufficient time has elapsed in the majority of the cases treated to enable one not only to form a judgment as to the immediate effects of the treatment, whether beneficial or otherwise, but also to test whether these effects are lasting or merely temporary in character. The manner of carrying out suspension recommended by Prof. Charcot was followed. The patients were suspended regularly three times a week about an hour before their early dinner. On the first occasion the duration of suspension was thirty seconds only, and this was increased by thirty seconds at each successive visit until a period of three minutes was reached. In some of the earlier cases the duration was prolonged to five minutes at each visit, and three patients were suspended by the head only instead of by the head and arms; but as no advantage was perceived to accrue either from the longer time of suspension or from the absence of the arm-slings, these modifications were given up. In every case no medicine except antipyrin for pain, and occasional dyspeptic or aperient doses was given for from two to four months or longer after the treatment was begun. Later on, cod-liver oil and tonics were given to some of the patients, but in all a sufficient time was allowed to elapse to estimate the value of the treatment before other medicines were administered. With the exception of five patients, who were taken into the hospital on account of the distance at which their homes were situated, all were treated as out-patients, so that their ordinary condition and mode of life was not interfered with. Altogether, twenty-nine cases were suspended for periods varying from one to ten months. Twenty-four were cases of tabes dorsalis, two (brothers) of hereditary ataxy, two of spastic paraplegia, and one case of doubtful nature, probably of damage to cauda equina.[1]

It may be stated generally that no change was noted in any of the following symptoms in any case in which they were present: loss of knee-jerk or of plantar reflex; Argyll-Robertson phenomenon, loss of dilatation of pupils to sensory stimulation, myosis, inequality of pupils, oculo-motor palsy, or optic disc atrophy; paralysis of cranial nerves, atrophic paralysis of muscles (tongue and thenar eminence), or any considerable degree of anæsthesia. In one case the knee-jerks, which were feebly present at the commencement, became lost in the year subsequent to the treatment. The chief modes in which improvement was shown were in sense of general well-being, the patients nearly always stating that "they felt better in themselves" for suspension; in increased strength and powers of walking; in lessened giddiness, but not always in the case of giddiness in the dark; in Romberg's symptom; in amelioration of lightning, rectal, and girdle pains; in regaining partially or completely the sense of position of the limbs when that had been impaired or lost; and in improvement of feelings of numbness, tingling and formication, and light degrees of anæsthesia. No constant effect on disorders of micturition could be traced, some patients improving in this respect, the majority not. Where the occurrence of gastric crises was a marked feature of the illness, suspension did not diminish their frequency or severity, and in some cases seemed to make them worse at the commencement. Of accidents there were none. The treatment was interrupted or stopped in a few cases on account of attacks of sickness; in one patient œdema of the feet supervened without any definite cause; in several giddiness for a few minutes after suspension was troublesome; but only one patient was sufficiently bad to make it advisable to stop treatment altogether. One man (No. 18), who had suffered two years previously from paralysis of the abductors of the vocal cords, for which tracheotomy had been recommended but not performed, and who still had marked paresis of these muscles, bore suspension without any discomfort. Of the twenty-four cases of tabes dorsalis two were men suffering from advanced atrophy of optic discs—one of them was blind, and in the other vision was greatly impaired—together with absent knee-jerks and lightning pains, but no other cord symptoms. These patients were suspended on account of the published statement that the treatment had resulted in improved vision in such cases. Unfortunately no such effect was produced in my two patients. Of the other twenty-two cases the result was good in three cases, and in them the benefit has so far remained permanent. Two others also derived great good from prolonged courses of suspension, but relapsed after an interval of six months, becoming nearly as bad as before; both these patients returned, and were subjected to a second course of two months' duration, from which they gained as much benefit as before, and have now remained well for about six months. Five patients were improved, but to a less degree than the foregoing. Of these two have been lost sight of; one relapsed after a time, and was getting steadily worse when last heard of, one relapsed after eight months of good health and hard work, and is again improving rapidly under a second course, and another went back to some degree, though he did not become so bad as he was before suspension, and recently returned for fresh treatment. In this last case the duration of the first course of suspension was only a month, and he has again derived good from a second course. Two other cases must be put down as slightly improved but are still under my care, and therefore the final result cannot be stated. In two more slight improvement has been shown as regards some symptoms, and they are so far better and have remained so for some time—a year and a half in one case,—but in most respects their condition is unchanged. Another patient improved at the commencement of treatment only, and must be classed with the seven remaining cases in which the result was absolutely nil.

I have thought it desirable in the further analysis of the cases to divide them according as they fell into one of the three groups or stages now generally recognised as belonging to tabes dorsalis. These are—(1) the pre-ataxic stage in which ataxy of movement is not present or is only very slightly marked, but the existence of the disease is shown by the occurrence of more or fewer of the following symptoms: loss of knee-jerk or of other tendon reflexes, inequality of pupils, Argyll-Robertson phenomenon, myosis, atrophy of optic discs, oculo-motor paralyses, Romberg's symptom, lightning pains, gastric crises, disorders of micturition, affections of common sensation, girdle pain, &c.; (2) the ataxic stage, in which locomotor ataxy is a striking feature; and (3) the stage in which the patient is either unable to walk at all or only with great difficulty with the aid of others. I may state parenthetically that it is not meant to imply by the expression "stages" that the first must necessarily pass into the second stage, for many cases remain in the first stage and never develop marked ataxy. Of the twenty-four patients, twelve were in the pre-ataxic stage, and the following table gives the result with the duration of the disease in years:—

Duration of disease.	No. of cases.	Result.
1 year	1	Good, but relapsed, improving again under a second course of treatment.
2 years	4	In one good, another improved, in two nil.
5 ,, ...	1	Good.
6 ,, ...	3	One improved, one better at first, but relapsed at once, and in the third improvement, but still under treatment.
10 ,, ...	1	Improved.
12 ,, ...	1	Nil.
20 ,, ...	1	Good; relapsed and improved again.

Total result: Good in four, two, however, relapsing and

[1] An account of the more immediate effects of the treatment in thirteen of these cases will be found in the Practitioner, October, 1889.

TABLE OF 29 CASES OF SUSPENSION IN THE TREATMENT OF TABES DORSALIS.

No.	Name and age.	Duration of disease before treatment.	When first suspended.	Leading symptoms.	Duration of treatment.	Immediate results.	Subsequent history to June, 1891.
1	Cs. O.,* 53.	2½ years.	March 1, '89.	Ataxy of arms and legs, arms chiefly; pains and numbness; gastric and laryngeal crises; nocturnal enuresis.	20 weeks.	Relief of ataxy in legs; greater power of walking; arms unaffected; gastric crises worse.	Symptoms in arms a little worse, otherwise stationary or rather better.
2	Fd. K.,* 40.	6 years.	March 1, '89.	Ataxy great; lightning pains; giddiness; gastric crises; rectal pains.	22 weeks.	Good; pains, sickness, and ataxy relieved; returned to work.	Has remained well, and at hard work for a year and a half.
3	Rd. K.,* 53	8 years.	March 14, '89.	Ataxy great; partial optic atrophy; giddiness; lightning pains; urinary incontinence; left external strabismus.	30 weeks.	Improved for a short time as regards pains and incontinence; soon became as bad as ever.	Growing steadily worse.
4	Wm. B.,* 46.	4 years.	May, '89.	Great ataxy; loss of muscular sense in legs, and anæsthesia; lightning and girdle pains; gastric crises.	10 months.	Improved in ataxy; muscular sense regained; pains better.	Remained well, and at work for 8 months, then returned not quite as bad as before; is again improving under treatment.
5	Annie M., 44.	5 months.	May, '89.	Absent knee-jerk; ataxia; staggering gait; static ataxia; lightning pains.	28 weeks.	Improved in giddiness and ataxy.	Lost sight of.
6	Ed. P., 38.	7 years.	June, '89.	Ataxy; weakness; lightning pains; gastric crises and palpitations; severe giddiness; knee-jerk absent; pupils unaffected.	12 weeks.	Improved slightly at first, but soon relapsed.	Growing steadily worse.
7	Wm. W.,* 49.	20 years.	Sept. 17, '89.	Very severe lightning pains; giddiness; gastric and laryngeal crises; ataxy very slight; weakness in walking &c.	30 weeks, and again 8 weeks after 6 months' interval.	Good; pains much better; gained strength.	Relapsed after 6 months, but improved again with second course, and has remained well for 6 months.
8	Eliz. M.,* 46.	7 years.	Aug., '89.	Died from septicæmia. (See *Brain*.)	4 weeks.	Nil.	—
9	Eliz. C., 37.	2½ years.	Aug., '89.	Ataxy and difficulty of walking; pains and giddiness; knee-jerk and plantar reflex absent.	23 weeks.	Nil.	—
10	Geo. B., 40.	2 years.	April, '89.	No ataxy; advanced optic atrophy; absent knee-jerks and lightning pains.	12 weeks.	Nil.	—
11	Wm. D.	12 years.	April, '89.	No ataxy; blindness from optic atrophy; no knee-jerk; formerly lightning pains.	4 weeks.	Nil.	—
12	Ed. W., 40.	6 years.	March, '89.	Lightning pains; gastric crises; knee-jerks feeble at first, but later lost; myosis; numbness of feet and legs; paresis of right internal rectus.	25 weeks.	Improved at first, but relapsed.	Growing worse when last heard of.
13	C. W. H.,* 45.	5 years.	Oct., '89.	Commencing ataxy; lightning pains; numbness of feet; giddiness, especially in the dark; difficulty in micturition.	23 weeks.	Good; pains, giddiness, and ataxy relieved.	Improvement maintained.
14	E. F. M., 62.	2 years.	March, '90.	No ataxy; "giving way of legs"; lightning pains; incontinence of urine; partial atrophy of left side of tongue; knee-jerk and superficial reflexes absent.	10 weeks.	At first unable to stand suspension for more than a minute, afterwards bore it well; pains relieved; better and stronger.	Improvement maintained.
15	Hy. D.,* 53.	10 years.	Feb. 26, '91.	No ataxy; weakness of legs; lightning pains; rectal pains; giddiness; difficulty of micturition.	4 weeks.	Better; free from pain and stronger; left off suspension, but returned in May, 1891, as he did not feel so well without it.	—
16	Elias E.,* 46.	1 year.	Dec., '89.	Very slight ataxy of arms and legs; giddiness; lightning and girdle pains; gastric crises; partial atrophy of optic discs.	16 weeks.	Much better; could walk almost any distance; free from pain.	Relapsed after 6 months, returned for second course of 3 months; improved again, and remains well.
17	Thos. T.,* 37.	6 years.	Feb., '91.	Ataxy; could only walk with help; "giving way of legs"; lightning and girdle pains; giddiness.	4 weeks.	Very trifling improvement in walking.	—
18	John B.,* 48.	2 years.	Nov., '89.	Ataxy great; lightning pains; urinary incontinence; could only walk with a stick; arthropathy of left knee; gastric crises; paresis of abductors of vocal cords.	5 weeks.	Nil.	Growing steadily worse when last heard of.
19	Eliz. H.,* 38.	2 years.	Spring of '90.	Commencing ataxy; giddiness; lightning pains; rectal and girdle pains; gastric crises; bladder troubles.	8 weeks.	Improvement in walking powers and in pains; legs "jump" after suspension; gastric crises rather more often.	Lost sight of.
20	Pharaoh H.,* 40.	4 years.	Aug., '90.	Ataxy; lightning pains; girdle pains; occasional incontinence of urine; pallor of optic discs; atrophy of muscles of thenar eminences, mostly on right side.	4 weeks.	Nil.	—
21	Joseph W.,* 59.	9-10 years.	April, '91.	Ataxy; numbness of legs; lightning pains; great giddiness; static ataxia.	4 weeks.	So far somewhat better; was first seen in 1886, and then improved under arsenic and tonics.	—
22	G. H. M.,* 45.	6 years.	Jan., '90.	Great ataxy, rendering walking impossible without help; ataxia of arms and static ataxia; loss of muscular sense; diplopia; incontinence of urine; lightning pains.	9 weeks.	Nil.	—

TREATMENT OF TABES DORSALIS.—(*Continued*)

No.	Name and age.	Duration of disease before treatment.	When first suspended.	Leading symptoms.	Duration of treatment.	Immediate results.	Subsequent history to June, 1891.
23	Geo. M., 44.	6 years.	April, '91.	Frequent gastric crises; once hæmatemesis; heavy sweats; giddiness; Romberg's symptom; lightning pains; bladder troubles; myosis; Argyll-Robertson phenomena; left knee-jerk absent, right present.	4 weeks.	So far better and stronger; pains less; sweats less; giddiness better.	—
24	Alf. B.,* 42.	7 years.	Nov., '90.	No ataxy; "giving way of legs"; left eye blind from optic atrophy; gastric crises; lightning pains; urinary incontinence.	16 weeks.	Slight improvement; suspension interrupted several times for severe giddiness and sickness.	Slight improvement, which was maintained by second short course of treatment in this year.
25	John S., 62.	62.	Summer of '89.	Case probably of lesion of cauda equina; pains along left sciatic nerve and in bladder and rectum; gait weak; ataxia with eyes closed; patches of anæsthesia over legs.	23 weeks.	Improved as to pain and powers of walking and standing.	Improvement maintained.
26	Albert A., 30.		'89.	Two brothers affected with Friedreich's disease. (Vide THE LANCET, March 23, 1889.)	4 weeks.	Nil.	—
27	Isaac A., 14.				8 weeks.		—
28	M. A. C., 55.	5 years.	Dec., '89.	Spastic paraplegia.	8 weeks.	Nil.	—
29	A. B., 26.	18 months.	June, '89.	Spastic paraplegia.	4 weeks.	Nil.	—

Note.—In the table, an asterisk after the patient's name indicates, for sake of brevity, that the knee-jerk was absent, the Argyll-Roberson phenomena present, and that there was either myosis or inequality of pupils. Case 1 is reported fully in *Brain*, spring number, 1891; Case 8 in *Brain*, autumn number, 1890; Cases 26 and 27 in THE LANCET, March 23rd, 1889, and a fuller account of first 12 cases in *Practitioner*, Oct., 1889.

improving under second course; improvement in three; nil in four; one too soon to judge of the lasting result. Eleven were in the ataxic stage, and are arranged according to the duration of the disease.

Duration of disease.	No. of cases.	Result.
5 months ..	1	Improved, but lost sight of.
2 years	2	One slight partial improvement; one nil.
4 ,, ...	2	One improved for eight months, then relapsed, and is again improving under treatment; one nil.
5 ,, ...	2	Nil, one good.
7 ,, ...	2	Two nil, one better for very short time.
8 ,, ...	1	Nil.
9–10 ,, ...	1	Slight improvement; still under treatment.

Total result: Good, one; improved, three, of whom one relapsed; sligtly improved, one; nil, six.

In the first case marked as good, a very satisfactory result was attained after sixty suspensions; he suffered from severe ataxy, lightning pains, and occasional incontinence of urine, quite incapacitating him from work. After the treatment he was able to go back to his work at a drilling machine, and has remained well and at work for nearly a year and a half, suffering occasionally only from slight pains and giddiness. One patient in the *third* stage gained no advantage from a course of suspension lasting nine weeks. As to the length of time during which suspension was carried out: this was ten months in one case, twenty-five to thirty weeks in four cases, twenty to twenty-three weeks in another four, sixteen weeks in three, eight to twelve weeks in five, and four to five weeks in seven cases. The periods may seem very long, but the treatment was purposely extended in order to ascertain whether the effects would increase in direct ratio with the length of time. On carefully comparing the results attained with the duration of treatment, I have come to the conclusion that no proportionate advantage was gained from the very long courses of suspension, and that from ten to twelve weeks—or at most sixteen weeks—is long enough in all cases. After twelve weeks all the benefit that is to be gained from it will have been gained, and if there is no improvement after eight weeks' treatment there is not likely to be any afterwards. If a relapse occurs after some months a second course of eight to twelve weeks' duration may be carried out with good results, as is shown in some of the above cases. Some importance is to be attached to the degree of care with which suspension is performed. I believe some of the failures are due to carelessness in the manner of doing it. The straps should be carefully adjusted, so that the head and arms may each bear their due share of the weight of the body; the supports should be properly padded, in order to avoid giving discomfort to the patient, and the head-supports be so arranged that they do not compress the vessels of the neck. I feel sure that attention to minor points will often make all the difference in the results gained from the treatment. As to the other patients, the two cases of spastic paraplegia and of Friedreich's disease remained unaffected for good or bad, so far as could be ascertained. The man suffering from damage to cauda equina improved very much both as to gait, pains, and numbness over the legs, and has remained much better ever since.

The manner in which suspension acts is a difficult problem to solve. The structures which support and protect the spinal cord would seem especially adapted to prevent any actual stretching of it whilst they remain intact, and it appears improbable that suspension should cause changes in the circulation of the blood through the cerebro-spinal axis sufficiently profound to produce lasting effects. It is suggestive that the best results were arrived at in those patients in whom the disease had not gone on to the development of ataxy, and that a larger proportion of them improved than of the ataxic. In this class lightning pains are often most intense and recur at frequent intervals, rendering the patient's life a miserable one. Among the other clinical features are weakness of the legs and an inability to walk any distance, whilst general muscular feebleness is often as marked a symptom in them as not infrequently it is conspicuously absent in cases that show great ataxy of movement. Together with the other signs that place the existence of tabes dorsalis beyond doubt, there is often a general feebleness, loss of energy, and want of confidence in their powers. These patients are afraid to cross a busy street or to go into crowded places. One cannot in the consideration of tabes dorsalis leave out of sight the disturbing influence of the morbid changes in the cord on cerebral and cerebellar processes, and, again, the secondary effects of this disturbance on the mind and emotions. In short, the greater part of the central nervous system is directly or indirectly concerned, and we may suppose that according to the individual susceptibility to such secondary effects their extent and intensity will vary in particular cases. Or in other words, in some cases the remote functional derangements will be out of proportion to the actual organic changes. Though the structural lesion interferes directly with the proper performance of certain functions, indirectly it has a still wider influence. The partial or complete absence of certain sensations that normally guide us in the functions of station, locomotion, and other coördinated muscular actions induces the patient to believe that he is incapable of performing much that is in reality

still possible for him. He ceases to be able to distinguish what he can from what he cannot do, loses confidence in his powers, becomes nervous as regards all motor actions, probably often fails from concentrating his attention too strongly upon the execution of them, so that the range of disablement is indefinitely extended. Could we, however, restore his confidence, make him feel that he was regaining his former powers of easy coördination of muscular action, we should relieve him of many of his symptoms—namely, those indirectly or remotely connected with the actual lesion, although the direct signs of structural mischief in the cord would remain unchanged. Now, there can be no doubt that the patients do thoroughly believe in suspension, and in some unexplained way they regain during treatment their lost confidence in their own powers. When they improve their first statement is that they feel better and stronger, have a sense of improved well-being, can do more, walk further, step out more vigorously, and no longer fear to go into crowded streets. Later on, as the next most constant signs of benefit, we have relief of pains, of giddiness, and perhaps of ataxy. On the other hand, the physical signs of organic disease remain unaffected. It is thus by busying itself on the more indirect symptoms that suspension appears to me to act, but in what manner I am quite unable to suggest. I believe that in the feeling of general well-being and of regained power of coördination of movement that it induces its real *modus operandi* is to be sought.

In a disease like tabes dorsalis, where the progress of the disorder is attended by frequent remissions or may be arrested at almost any stage, it is difficult to estimate aright the value of any particular mode of treatment, but I think that the following conclusions are justified:—1. That suspension is capable of affording relief in a certain proportion of cases of tabes dorsalis, and that cases in the "preataxic" stage derive the most benefit from it. Where locomotor ataxy has progressed so far as to prevent walking it is useless. 2. The duration of the disease appears to have little influence on the result, but the prospect of relief is somewhat more favourable in those in whom it has not lasted over six years. 3. If it is carefully carried out no untoward results need be feared; but in patients who suffer severely from gastric crises its use demands caution. 4. A twelve-weeks' course of suspension is likely to give as good results as one of more prolonged duration, but it should be continued for this length of time. 5. A relapse may occur after the patient has remained well for some time, and then fresh benefit may be derived from a second course of from eight to twelve weeks.

Clifton, Bristol.

CASE OF "SKEWER" AMPUTATION OF THE ENTIRE UPPER EXTREMITY.

BY BRIG. SURG. K. McLEOD, M.D., F.R.C.S. EDIN.,
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IN THE LANCET of April 19th, 1890 (page 847), I described the use of a combination of skewers and elastic cord for the purpose of preventing hæmorrhage in removing large tumours. I mentioned in that paper a case of amputation of the entire upper extremity by Mr. Joseph Bell of Edinburgh, in which the use of this combination had contributed to a brilliant success, so far as recovery from the operation was concerned. I have recently performed a similar operation, the success of which I attribute to the employment of similar measures. The details of the case are as follows:—

H——, a Mahomedan female aged fifteen, was admitted into the Medical College Hospital on the 21st of March, 1891. About three months before admission she noticed a swelling of the right arm and shoulder, which has continued to increase rapidly. Beyond the pain and inconvenience caused by the growth, her general health and comfort have not been injuriously affected. On admission a large globular tumour was observed beneath the right deltoid muscle, which was tightly stretched over it. Its lower limit corresponded to the insertion of the deltoid, and it reached the top of the shoulder, the acromion process being imperceptible. The circumference of the limb at the shoulder was nineteen inches, and the vertical arc of the tumour measured eight inches and a half. The growth was firm at its circumference, but soft and fluctuating at its centre. It filled the axillary space. The scapula was evidently implicated, and no movement existed at the shoulder-joint, the scapula and clavicle moving with the tumour. The outer end of the clavicle was lost in the mass. The skin over the tumour was tightly stretched and œdematous, but not infiltrated or broken. The tumour was tender to pressure and manipulation. The right arm and forearm were œdematous, and the right pulse somewhat weaker than the left. Patient was fairly nourished and had a healthy colour. Lungs and heart healthy; liver and spleen of normal size. Slight pyrexia (100° F.) occurred towards evening, but beyond sleeplessness and slight indigestion she was in the enjoyment of good general health.

An operation was performed on March 23rd for the removal of the mass, which was evidently a sarcoma, originating in the head of the humerus, and secondarily implicating the adjoining portion of the scapula and the muscles inserted into the head of the humerus. The part having been thoroughly cleansed and the patient chloroformed, a puncture was made in the floor of the axilla and another above and behind the tip of the shoulder, and a stout packing needle, about eight inches long, was passed from below upwards through the cavity of the axilla, behind the vessels and nerves, within the girdle of the shoulder bones, and finally made to emerge through the second puncture. A second needle of the same size was entered at the lower puncture, directed transversely beneath the scapula, and made to emerge behind the posterior or vertebral border of the bone. A strong indiarubber cord was wound, figure of 8 fashion, round the projecting ends of these needles, encircling the part with a tight elastic loop which was held in position by these skewers. A circular incision was now made about two inches on the distal aspect of this loop. It was first deepened in front, and the clavicle was reached and divided at the junction of the middle and outer thirds. The plexus and vessels were thus exposed and they were isolated, and a clamp forceps put on them for additional security. The attachments of the scapula were then rapidly divided and the extremity removed. The arrangements for preventing hæmorrhage were perfectly effective. The axillary artery was now identified, isolated, and tied; the elastic cord gradually loosened, and the vessels as they presented were secured. The skewers were finally withdrawn and the nerves cut short. The axillary glands were removed *en masse*. Two drainage-tubes were inserted, one at the lower angle of the wound, and the other through an opening made where the lower angle of the scapula had rested. The flaps were stitched with silk and horsehair. They were rather scrimp, and required a little traction to bring them together. The wound was dressed with scrupulous antiseptic precautions, and the patient, who exhibited some signs of shock, ordered frequent doses of a diffusible stimulant. During the first few days the pulse remained abnormally rapid and the stomach very irritable. Patient was sleepless and complained of severe pain in the epigastrium. The morning temperature was normal, and there was a slight rise to 99° or 100° towards evening for a week. The wound remained aseptic. Some suppuration occurred in the track of the posterior tube. The tubes were gradually shortened and finally withdrawn on the 1st and 3rd of April. The lips of the wound united, but there was some tension of the deep stitches, which began to cut, when they were withdrawn. The granulation material stretched to the extent of about an inch and a half. The wound eventually healed by granulation, the cicatrix being linear and freely movable over the ribs.

The tumour was found by Dr. Gibbons to be a spindle-celled sarcoma, growing and degenerating very rapidly. Having previously performed this operation, with the result of death from hæmorrhage and shock on the same day, the favourable issue in the present instance was peculiarly gratifying to me. The subject was certainly more promising than either of the other two, but the signs of shock were very evident and somewhat alarming on this occasion, and had loss of blood been superadded, it is almost certain that death would have taken place. The skewers and cord were applied with very great ease and speed, and the control which they exercised over the bleeding was absolute. The arrangement also permitted of gradual relaxation of the cord, and the vessels requiring deligation were thus secured *seriatim*.

Calcutta.

PAROXYSMAL HEART HURRY ASSOCIATED WITH VISCERAL DISORDERS.[1]

BY A. SYMONS ECCLES, M.B., &c.

THE coincidence of tachycardia with abnormalities, both organic and functional, in the abdominal viscera has occurred in so frequent a proportion among cases which have come under my personal observation within the last three years that I venture to offer for the consideration of the profession a brief record of facts noted under conditions affording exceptional opportunities for close and continued observation, and to base thereon certain suggestions in regard to the connexion between paroxysmal heart hurry and visceral disorders, which, so far as my reading goes, have not hitherto been made by writers on tachycardia. Setting aside the slighter forms of heart hurry, which we know as "palpitations," occurring infrequently, lasting for a short time, and being distinctly arhythmical, familiar to us all in association with flatulent dyspepsia, but which I think should not be confounded with true paroxysmal tachycardia, my small experience of this comparatively rare condition is confined to cases of more or less gravity, wherein there has been distinct disease or displacement of one or other of the abdominal organs in both sexes, or serious disturbance of the pelvic organs in females, and at the risk of appearing to argue *post hoc ergo propter hoc*, the coincidence of extreme rapidity of the heart's action occurring in paroxysms with floating kidney, dilatation of the stomach, and profuse menorrhagia at the menopause, has induced me, in default of pathological evidence to the contrary, to regard prolonged irritation of one or other branches of the abdominal sympathetic as a possible cause of paroxysmal heart hurry. It appears to me that just as irritation of the solar, renal, or other abdominal plexuses may produce pain or excite muscular action in the organs supplied by the stimulated nerve, so the stimulus may be referred from one periphery to the other; and thus intense impressions produced by disease or misplacement of the abdominal organs on the sympathetic filaments or ganglia with which they are endowed may be transferred to the cardiac branches of the sympathetic, or to the accelerator centre. Or if this be not a reasonable explanation of the morbid phenomena witnessed in these cases, it seems not unlikely that the strong and prolonged stimulation of the sympathetic nerves supplied to one or other of the abdominal viscera may result in stimulation to fatigue of the vagus centre,[2] and the following cases appear to afford evidence in favour of this proposition.

Mrs. ——, aged forty-nine; history of cancer of the breast, for which she was operated on three years previously; had been falling off in weight and flesh for about twelve months, and especially for the last three or four months; catamenia almost entirely ceased about three months previously after a continued flow; had been in bed for seven weeks suffering from retching, nausea, flatulence, insomnia, palpitation, and breathlessness, occurring at intervals. There was fulness and tenderness of the liver, and just below the margin of the right ribs a very hard slightly nodulated swelling could be felt slipping from under the hand on pressure (right floating kidney). Mr. Knowsley Thornton saw the patient with me some ten days after I had first seen her, but failed to discover any certain evidence of malignancy; but he also detected a similar condition of stony hardness and mobility in the left as well as in the right kidney. There were no abnormal heart sounds, but on the seventh day after admission, in the evening, there was an attack of paroxysmal heart hurry lasting for twenty minutes, the pulse running up to 145; at 2 o'clock in the morning another attack lasting for nearly ten minutes; pulse 170. In the intervals the pulse ranged between 80 and 96. In two months the patient had altogether six attacks of tachycardia lasting for a few minutes each, in addition to those previously noted, but her general condition appeared to improve, and she gained in that time seven pounds, slept soundly at night, and took much more food than before, the vomiting and flatulence ceasing entirely, the normal moisture of the mouth was restored, and there was no longer any constant attempt to expectorate viscid mucus; but no real improvement can have taken place in the patient, for eleven weeks after I first saw her she succumbed.

Mrs. ——, aged fifty, whom I saw in consultation with my friend Dr. Stanley Smith in the early part of this year, had been operated on three times for a growth in the rectum; last operation two years and a half ago. Since then the patient had suffered from parametritis, and following the attack there had been more or less sleeplessness, anorexia, vertical and frontal headache, and occasional attacks of extreme rapidity of the heart's action accompanied by a sensation of faintness, followed by much exhaustion, sometimes lasting for half an hour or more. The succussion note of the stomach was distinctly elicited on a level with the umbilicus, and the limits of the organs appeared to be greatly increased; there had, however, been no actual vomiting, but great dislike for food, with an accompanying hungry pain at irregular intervals. During the ten weeks that the patient was under my personal observation she suffered from three distinct attacks of tachycardia, the first occurring immediately after the catamenial period, which had been very profuse, the other two during the second and third catamenial periods, both of which were menorrhagic in character but unattended by any ovarian or pelvic pain. The first attack occurred in the evening shortly after the patient had retired for the night, and lasted for nearly ten minutes, during which the pulse beat regularly but weakly, at the rate of 200. The breathing was 25 per minute; the face was flushed, and the countenance bore an anxious expression; the feet and hands were cold. The axillary temperature was barely 98° during the paroxysm.

My attention to the existence of tachycardia as a concomitant with floating kidney was first attracted by the case of a young lady three years ago, in whom the existence of a right floating kidney had been diagnosed by two distinguished physicians, at whose instigation she underwent the rest-massage treatment under my care. For a period of six weeks the pulse was only on rare occasions under 96 per minute, and occasionally rose to 125, the highest record without apparent cause, although the increased rapidity occurred more frequently after the slight exertion of leaving the bed than at other times. A similar rapidity of the pulse was again noticed in a second case of floating kidney occurring in a gentleman aged fifty, who was under my observation for about a fortnight. No note of paroxysmal heart hurry was made during that time, save once during the night, when the pulse rose to 150. The next case coming under my notice was one to which reference has already been made at a meeting of the West London Medico-Chirurgical Society by Dr. Seymour Taylor and myself, and I have been fortunate enough to secure a succinct life-history of this patient from a perfectly reliable source which I think affords very remarkable evidence in favour of the belief that the existence of floating kidney was the original cause of the condition which eventually proved fatal. At the time I was called to see this lady in consultation with her usual medical attendant, I was totally unaware of the existence of any visceral disturbance, and until I saw her no data were afforded save that there had been absolute sleeplessness for twenty-one days and nights, the existence of this total insomnia being strenuously insisted upon by the nurses who watched her day and night. At the time of my first visit a paroxysm of heart hurry had existed without cessation for more than three weeks, during which period the heart beats, when it was possible to count them, are said to have reached 245 per minute. The patient, a stout lady aged fifty, was lying in the dorsal position with the head and shoulders raised; the countenance was livid; eyes prominent; respiration 40; pulse uncountable; heart sounds normal save for the extreme rapidity, the apex beat was just below and outside the nipple; the abdomen was enormously distended, the feet and hands were cold, and there was a clammy perspiration over the whole body. The patient was conscious and fully recognised those around her. My first visit, at which I attempted nothing, was in the afternoon. My second visit lasted from 9 P.M. until 2 A.M. For two hours I was busily engaged in attempting, by abdominal massage and the evacuation of flatus and fæces from the bowel by means of a long tube, to reduce the very remarkable distension of the abdomen, which was the greatest I have ever seen. In this I was so far successful that the walls of the abdomen, pre-

[1] A paper read at the West London Medico-Chirurgical Society, May 2nd, 1891.

[2] Vide Landois and Stirling, pp. 886.

viously hard and tense, became much softer and flaccid, and in the course of kneading the ascending colon I was able to detect very distinctly an oval tumour in the right iliac region close to the groin, which slipped away on pressure. This, after careful manipulation, I felt quite sure was the displaced right kidney. My diagnosis was subsequently confirmed by the gentleman with whom I was in consultation and two of our most distinguished physicians, one of whom, however, was not prepared to accept my suggestion that the floating kidney was the cause of the tachycardia. Death, due to failure of the heart's action, apparently from sheer exhaustion of the overworked heart, the beat of which even during sleep was never reduced below 180 per minute, occurred six days after I had first seen the patient. Three attacks of syncope occurred in the last twelve hours of life before the final failure of the heart's action. The following is the history given by the husband: He had heard the patient say that she first noticed some internal discomfort at the age of three, when it was reported by a relative that she threw herself on a chair, saying that she had a clock inside. As she grew older she became stronger, but was always a delicate child, and often on stooping to pick up anything heart hurry was brought on. To within a few years of death the attacks in all cases came on and passed off suddenly; for instance, on one occasion, her husband having given her a glass of champagne during an attack, before he could put the glass down again the pulse became quiet, exhaustion being the only effect noticed. On another occasion, as soon as an attack of twenty-four hours' duration ceased, there was absolute relief; and she crossed the Channel, though a bad sailor, without a recurrence. Her husband said that at the time he knew her first she had been free for some years, save from attacks lasting for half an hour only. Before the birth of her eldest son (aged thirty at the time of her death) she had a severe attack; and a month before the birth of her youngest child (aged twelve at the time of her death) she had an attack which lasted three days. Long standing brought on a paroxysm. Fourteen years before death the patient discovered that lying on the right side brought on a paroxysm. She used to say that she felt her heart fall, though her medical man never found it displaced. She could always lie on the left side, and could steady the heart by lying on the left side, and drawing up the right thigh forcibly against the abdomen. The paroxysm generally ended in a kind of "worse moment." When the paroxysm was threatening, the patient would place herself in the recumbent position on the left side. The right arm was then strongly stretched over the head, and the right thigh forcibly flexed against the abdomen. This always availed to steady the heart until the penultimate attack. Many English and French physicians and surgeons were consulted; numerous methods of treatment and drugs were employed without avail. The patient always suffered during the attack from pain and a peculiar dead sensation about the nails and tips of the fingers. Three years before death a long attack, lasting for weeks for the first time, terminated gradually instead of suddenly. Then a change in the symptoms took place. After the attacks were over, there was almost constant umbilical pain, with exacerbation of agony, lasting sometimes six hours, spreading through the back and up and down the inside of the thigh to the knee. The patient's health steadily got worse, and nervous symptoms followed on long-continued pain. A fissured anus was discovered by an eminent Parisian surgeon, who successfully operated for it. Finding that going up and down stairs brought on a paroxysm, the patient had for many years been carried upstairs, but on one occasion, having been induced to walk upstairs, an attack came on. The paroxysms became more frequent and lasted longer, and during the attack only was albumen found in the urine, but never after the cessation of a paroxysm. There was severe illness for three years before the death; a deep inspiration would bring on a paroxysm, the penultimate attack lasted fourteen days, and was followed by a month's comparative ease, when the last attack ensued, and extended over a period of nearly four weeks, terminating in the way I have already described.

I think this case will be recognised as one of the most remarkable examples of paroxysmal tachycardia yet recorded. The history is undoubtedly authentic, and appears to me to bear out the opinion I had formed before I had heard it, that the condition of the heart depended upon the irritation of the abdominal sympathetic produced by the renal dislocation. The sensations of the patient, the seat of pain, and the flatulent distension of the stomach and intestines; the loss of peristaltic power in the bowels, resulting, as I should have stated on two occasions in constipation lasting for some days; the existence of albuminuria and casts only during the attacks, the initiation of the paroxysms by deep inspiration, by stooping, and by unusual exertion; the fact that they had been frequently relieved by adopting a peculiar posture, which is precisely that which would favour auto-reposition of the kidney,—all seem to point to the closest connexion between the existence of floating kidney and paroxysmal tachycardia. The cases previously narrated, three of which I had seen before this one, afford corroborative evidence in support of the view I venture to put forward, that paroxysmal heart hurry may frequently be found to coexist with lesion of the abdominal sympathetic, and possibly oftentimes results therefrom; and I cannot help thinking that other such cases as I have recorded may have occurred and been overlooked from omission to make a systematic examination of the abdomen in cases of heart hurry.

Leinster-square, W.

ON SOME COMPLICATED CASES OF ABDOMINAL SECTION.[1]

BY JOHN D. MALCOLM, M.B., C.M., F.R.C.S. EDIN.,
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IN the autumn of 1887 I endeavoured to demonstrate that the cause of death following an abdominal section is not infrequently some obstructive condition of the bowels, and that in many cases of this kind the fatal result has been erroneously attributed to peritonitis or to septicæmia.[2] Further observation has confirmed me in this opinion, and I now relate the following cases in illustration of these views.

CASE 1.—On August 23rd, 1888, in the absence of Mr. Knowsley Thornton, I operated, at the request of Dr. Murphy of Twickenham, on a patient from whom Mr. Thornton had removed an ovarian tumour on May 9th of the same year. The history was one of increasing difficulty with the bowels, commencing soon after the ovariotomy. When I saw the patient obstruction was complete. There was a prominent tender swelling, resonant on percussion, and fixed in the lower part of the right side of the abdomen. The finger in the vagina could just reach this swelling. The rest of the abdomen was soft and flat. The temperature was 99·2° F.; the pulse 100 and losing strength. It seemed to me probable that some adhesion resulting from the first operation was the cause of the difficulty with the bowels. On opening the abdomen I found some inflammatory adhesions matting the parts together behind the cicatrix and in the pelvis. Two tensely distended coils of intestine lay parallel to each other and extending from the brim of the pelvis on the right side towards the right loin. I could not empty the distended gut by pressure in any direction, nor could I make out the cause of the obstruction. I therefore inserted a trocar into one of the coils, and removed a quantity of flatus and liquid fæces. It then became obvious that the obstruction was due to the presence of a neoplasm springing from the posterior abdominal wall just above the lower end of the ileum. I estimated the mass to be about the size of a Tangerine orange, and the bowel involved was evidently a portion of the jejunum close to its upper end. The nature of numerous minute points which had been noted scattered over the peritoneum was now made clear. It seemed useless to make a fistula, while, in view of the widespread character of the disease, any operation for making a communication between two portions of the gut seemed equally futile and more than likely to end in the death of the patient on the operating table. I therefore sewed up the trocar wound, and that of the abdominal wall, and in doing so discovered several other foci of new growth, from the size of a pea downwards, amongst the adhesion. The patient rallied from the immediate effects of the operation, but gradually sank and died in about thirty hours. In this case, judging by her previous convalescence, there was every reason to suppose that under favourable circumstances recovery

[1] A paper read before the Harveian Society, May 7th, 1890.
[2] The Condition and Management of the Intestine after Abdominal Section, Med. Chir. Trans., vol. lxxi.

would have taken place satisfactorily. Death within a few hours or days is, however, the invariable result of an unsuccessful attempt to relieve a complete obstruction of the bowels by abdominal section. The same unsatisfactory issue follows when a complete intestinal obstruction is produced as a consequence of an operation.

CASE 2.—On March 7th, 1887, a woman, forty-four years of age, consulted me on account of a small painful fibroid tumour of the uterus, which she said she had been able to feel for twelve years. The patient was under my care for nine months. In December the tumour had quite tripled its size when first examined. It reached as high as the umbilicus, and was apparently attached to the right cornu of the uterus by a narrow pedicle. The periods were very free. Pain was constant and increasingly severe, while the patient had grown very thin. As her condition was evidently becoming worse, and there was no possibility of alleviating it by rest, I asked Mr. Thornton to see the case with me, and, with his approval, I arranged to operate. On opening the abdomen I found that the tumour grew from the upper part of the right side of the uterus. It was completely within the right broad ligament, under the anterior peritoneal fold of which it slipped about freely. The ovary and Fallopian tube were tightly stretched round the posterior part of the tumour, and no doubt this was the cause of the severe pain. When its peritoneal capsule was incised the growth was easily separated from the loose connective tissue around it, and brought out of the abdominal cavity, remaining firmly attached, however, to the cornu of the uterus. The ovary and tube now slipped down almost into their normal positions. Both broad ligaments were tied off with silk and the wire of a serre-nœud was passed round the uterus and tightened without difficulty. The tumour was then cut away with the ovaries and tubes, and the wound was carefully sewn up, the wire and the cut surface of the uterus being kept outside, while the divided surfaces of the broad ligaments were left inside the peritoneal cavity.

After the operation there was little pain, and no opium was given. On the following morning there was distinct abdominal distension, which was much more marked towards evening. Flatus, which had been escaping through the rectal tube at intervals, now ceased to pass. I ordered half a drachm of sulphate of magnesia with ten grains of the carbonate every hour, and six doses were given. After this there was a very free escape of flatus from the rectum whenever the rectal tube was inserted, till 3 o'clock next morning, and also at 9 A.M. Notwithstanding this the abdominal distension rapidly increased. On the afternoon of the second day the saline aperient was again given in repeated doses, but no more flatus escaped downwards. Towards evening vomiting commenced and soon became continuous. The temperature slowly rose to 104° F. in the vagina, the pulse to 154, and the patient died at 4 A.M. on the third day after the operation. It was found after death that a coil of small intestine was adherent to the divided tissues of the right broad ligament. The bowel was here acutely bent. It was immensely distended above the adhesion, but completely collapsed below it. There was no other sign of disease. In this case also, when the operation was finished, there was no reason to anticipate an unfortunate result. The sequel showed that there was no deficiency of healing power; that, indeed, the rapid union between the pedicle and the intestine was the cause of the mechanical obstruction and of death. The case was treated in the belief that the unfavourable symptoms were due to some obstruction or to paralysis of the bowels. Before the post-mortem examination, however, it was confidently asserted by some that the patient had died from acute peritonitis. The case, therefore, proves that symptoms resembling those of peritonitis may be due to obstruction of the bowels. A misinterpretation of the meaning of such symptoms seems to me to be the origin of Mr. Lawson Tait's recommendation that "a rapidly acting purgative" should be administered "on the slightest indication of peritonitis after ovariotomy." If this be done, Mr. Tait asserts that "the patient's bowels are moved, and the peritonitis disappears."[3] In agreement with this Mr. Meredith says that "the *rationale* of the action of *saline purgatives* in the treatment of early symptoms of peritoneal mischief can, from my point of view, be explained only on the grounds of their promoting absorption through intestinal excretion."[4] But neither Mr. Tait nor Mr. Meredith has shown that the symptoms removed by a saline purge are ever "early symptoms of peritoneal mischief," or in any way due to peritonitis. It seems to me that all the evidence is against this view. One frequently sees cases with complete retention of the contents of the bowel, with the abdomen becoming distended, vomiting at intervals, and showing all those symptoms which so frequently precede death from abdominal section. These unfavourable signs may entirely disappear within a few hours of the administration of a purgative, or after the action of a purgative enema. The same result may occur spontaneously, or when the patient is under the influence of sedatives. However brought about, it frequently happens that when the constipation, distension, and vomiting are relieved the temperature rises, and sometimes rises rapidly. Such a rise of temperature after an operation is one of the surest signs of an increase of inflammation. Hence if the unfavourable symptoms removed by the action of a purgative be attributed to peritonitis, we arrive at the contradictory conclusion that in many cases as the symptoms of peritonitis get better the inflammation gets worse. If, on the other hand, the bowel symptoms are due to obstructive conditions, the rise of temperature following the relief of the intestinal difficulties is evidently caused by the stretching or tearing of recent adhesions as the contents of the bowel are forced down. The fact is that in these cases, when the contents of the bowel pass downwards, peritonitis, instead of disappearing, is frequently aggravated. If the obstruction be removed this increased inflammation, being local, is temporary and harmless.

One is forced to consider whether treatment by rest and sedatives would have led to a more favourable result in the case which I have recorded. This treatment is generally recommended, and is undoubtedly the most satisfactory method of managing an intestinal obstruction, whether arising in connexion with an abdominal operation or from other causes. There are, however, cases in which symptoms of obstruction following an abdominal section continue and increase, in spite of the administration of sedatives. I have made a post-mortem examination in which an almost exact repetition of the condition described above was found—namely, an acute bend of the bowel, the part above the bend being distended while the part below was collapsed. The clinical history of the case was very similar to that which I have here related, with the exception that the onset of symptoms was not so early and death was delayed until the fifth day. This case was treated throughout by sedatives. Treatment by opium or belladonna and rest is often successful in the first few days after an operation, when flatus does not pass freely downwards, when there is slight irregular distension of the bowels with discomfort and frequent spasmodic pain in the abdomen, but without the signs of an absolute obstruction. On the other hand, whenever one can say definitely that the intestine is unable to force down its contents, sedatives, it seems to me, are of no avail, because the treatment of an obstruction of the bowels by sedatives acts slowly, whereas a complete obstruction during convalescence from an abdominal section kills with great certainty in about three days after symptoms of the complication first show themselves. Treatment by purgatives may be equally unsuccessful, as in the case I have related. But urgent symptoms of obstruction after an abdominal section are often in great part caused by a paresis of the bowel resulting from its exposure and manipulation during operation. Hence, when symptoms of obstruction arise in these cases, it may be impossible to differentiate exactly to what extent paresis and to what extent a mechanical difficulty is the cause. When mechanical difficulties are the least important factors in producing symptoms of obstruction, any slight movement of a coil of intestine or of a hard mass of fæces may induce an immediate improvement. Under these circumstances sedatives, by keeping the parts quiet, may perpetuate a difficulty, and so do harm; whereas the stimulation of a purge may give most satisfactory results. It seems to me that if adverse symptoms increase under sedative treatment, the effect of a purgative should be tried, the lower bowel being first cleared by enema. I have seen such treatment followed by the rapid disappearance of all unfavourable signs. If an improvement does not follow, the mechanical removal of the difficulty by a second operation would seem to be the

[3] Brit. Med. Jour. 1886, vol. i., p. 921.

[4] THE LANCET, April 19th, 1890, p. 835.

only way to deal with the condition with any chance of success, although the results of second operations for the relief of obstruction of the bowels within a few days of an abdominal section are extremely discouraging. The case I have related would seem to have been a favourable one for such an attempt owing to the existence of only one small point of adhesion. I had, however, never seen symptoms due to obstruction beginning so early and progressing so rapidly. Hence I wavered in my opinion as to the cause of the patient's condition, and unfortunately did not reopen the abdomen.

CASE 3.—On March 25th, 1887, I performed ovariotomy on a young woman twenty-one years of age, who suffered from a large ovarian tumour, with consequent emaciation and debility. She was otherwise healthy, but of decidedly strumous constitution. The tumour grew from the left ovary, and no difficulty was met with in removing it. The right ovary was healthy. On the evening of the day following the operation the temperature rose to 103° in the axilla, the pulse was 120, and the patient complained of severe pain in the left side of the pelvis. Ice was applied to the head till the following morning, when the temperature had come down to 99°. The patient was now free from pain, and her condition seemed in every way satisfactory, except that the wound did not heal well superficially. The bowels were moved by enema on the sixth morning, and every second or third day afterwards by enema or by laxative medicine. With the exception of a temporary rise to 102° on the eleventh evening the temperature was not above 99·4° in the axilla till the fifteenth day after the operation, when it again rose. I then found a slight thickening of the tissues to the left of the uterus. The temperature after this was from 100° to 102° every evening. On the twenty-third day I detected a hardness of the tissues just above the inner end of the left Poupart's ligament. On internal examination a large mass was discovered filling the left side of the pelvis. There was evidently a suppurating cellulitis pushing up the peritoneum and burrowing forwards. The abdomen was poulticed, and three days later some pus burst through the lower end of the wound. The discharge was very free for some days, and then became scanty. The general condition now greatly improved. There was no pain, and the upper part of the wound healed rapidly. On the thirty-third day the patient again complained of severe pain, this time in the right side of the pelvis. An examination showed that a large very tender swelling had developed on that side also, while much indurated tissue remained on the left side, the uterus being firmly fixed between. The temperature now rose high every evening, frequently above 104° in the axilla. The patient had a severe rigor on the thirty-seventh day. There was at this time still a sinus leading three inches into the left side of the pelvis, but there was never any evidence of a second escape of pus. After ten days of severe hectic fever a slight general improvement began. Convalescence was very slow and repeatedly interrupted by febrile exacerbations. The wound did not heal till three months after the operation, and it was a month and a half later before the uterus became at all movable. Menstruation was in abeyance from five weeks before the operation till Aug. 17th, exactly six months. The periods were quite regular before and after that time, but were painful for a few months after their return. The patient has since continued quite well.

(To be concluded.)

MORE THAN TWO HUNDRED CASES OF INFLUENZA TREATED WITH LARGE DOSES OF SALICIN.

BY E. B. TURNER, F.R.C.S. ENG., L.R.C.P. LOND.

LAST year Dr. Maclagan published in THE LANCET the results of several cases of influenza which he had treated by the administration of large doses of salicin with excellent results. I have now treated a series of more than two hundred cases, both last year and this, with this remedy, and have found it extremely satisfactory. In the early days of the epidemic of 1890 I contracted the disease myself, and at once took large doses (twenty grains) of salicin every hour, with the result that my temperature, which was 105° at 5 P.M., was normal at 8 A.M., and all pain and discomfort had ceased; so that I was able to go out and do my work as usual, and, though weak and rather depressed for a few days, soon completely recovered. Since them I have treated every case I have met with on the same plan, and with the greatest success. I have not seen a single complication, not one case of bronchitis or pneumonia, and the only sequelæ brought to my notice have been three in number—viz, a slight attack of gout, a return of neuritis (of a gouty origin), from which the patient had recovered just before the onset of the influenza, and two or three attacks of spasmodic asthma in a man who had been subject to that ailment all his life, and which attacks were not complicated by any bronchial catarrh. The cases have all run a similar course, and convalescence has been practically established in twenty-four hours. I append notes of a typical case, with the treatment.

A. B——, male, age forty-two, on May 9th, 1891, awoke with sharp pains in back and limbs, intense headache, and general malaise. At 10.30 A.M. face flushed, conjunctivæ injected, tongue coated, complaining of pains as above. Temperature 104·4°; pulse 120. To take twenty grains of salicin in powder every hour. To have plenty of soup, milk, eggs and milk, and three or four glasses of champagne during the day. 7.30 P.M.: Pains nearly gone. Temperature 100·2°; pulse 96; free perspiration. To continue the powders through the night every three hours.—May 10th (10.45 A.M.): "Feels quite well:" no pain; tongue nearly clean; temperature 98°; pulse 76. To take one powder every four hours till evening, and then to discontinue them. To eat any light food fancied, with a glass of champagne at lunch and at dinner. To get up in the afternoon.—11th: Patient practically well; allowed downstairs; convalescence perfect and uninterrupted.

In the following case inability to retain the salicin at first somewhat retarded the usual speedy cure, but as soon as the sickness ceased the patient rapidly improved. On May 18th C. D——, female aged eighteen, while driving after lunch suddenly exhibited typical influenza symptoms. 4.30 P.M.: Acute pain in head, back, and limbs; face flushed and conjunctivæ injected. Temperature 103·6°; pulse 120. Constant and severe vomiting of green bilious matter. To take twenty grains of salicin every hour, and small quantities of soup, milk, champagne, and soda water with ice.—May 19th (10.30 A.M.): Much the same; owing to the constant vomiting but little of the salicin has been retained; some tenderness and pain in epigastric region. Temperature 102·3°; pulse 120. To take at once a draught containing twenty-five minims of tincture of opium and three minims of diluted hydrocyanic acid (B.P.) in water, and then to continue the previous treatment. 7.30 P.M.: Sickness much less. Salicin and food fairly well retained. Pains less. Temperature 99·4°; pulse 96. To continue the salicin every two hours.—20th (10.30 A.M.): Practically convalescent. Temperature 98·3°; pulse 72. This was the only case in which the temperature remained elevated and the pain continued for more than twenty-four hours.

The salicin treatment appears to me to diminish the infectiousness of the disease. I have had many cases, one or sometimes two in a house, but in no case have I found the malady spread until a whole household was down with it at the same time. The greatest number of cases seen in any one establishment is six, and these occurred three at a time at an interval of ten days from two distinct infections. It seems to me that salicin, by cutting the course of the disease short in the individual, renders him much less infectious to his fellows than if the fever had been allowed to run its usual course unchecked. I have found that the sooner the remedy can be administered after the first onset of the symptoms, the sooner do those symptoms abate, and if a case can be treated at once after the first shiver a normal temperature and freedom from pain are ensured in about six hours. The same treatment has proved beneficial to patients of all ages, children of three years and old persons of seventy have recovered equally quickly, the dose being of course graduated according to the age of the recipient. Some of the cases treated were of a sthenic character, the pulse and fever running high. In others the symptoms were distinctly asthenic, the temperature being about 101° and the pulse weak. Under such circumstances stimulants were freely given, but in either case the sheet anchor was salicin, and in every instance it acted like a charm. In the whole series of cases there has not been any complication, such as bronchitis or pneumonia, calculated to cause ten minutes' anxiety,

and not a single nurse has been necessary for the treatment of any of the patients. On recovery the subsequent depression was much less and of much shorter duration than in similar cases which I had treated with quinine and salines before trying the experiment of the large and frequent doses of salicin on myself. Had my experience of the effects of this drug been limited to two or three cases, I might have been inclined to put the good results down to accident, or to a run of mild attacks, which would have quickly recovered under any treatment; but the actual number of cases thus managed is 215, and they are continuous in series, with an unbroken record of success. This seems a sufficient number to eliminate accident, and it is hardly probable that every case which it has fallen to my lot to see during the whole of this epidemic and the greater part of last year's visitation was of so slight a character that it would have spontaneously got well in twenty-four hours, without sequel or complication. Granting that influenza is an infectious fever, possibly septic, attacking mainly the nerve centres, I think that the known therapeutics of salicin may to some extent explain its apparently specific action in this disease. If it be given in such doses as twenty grains an hour for ten or twelve consecutive hours, the blood must become thoroughly saturated with it, and, therefore (owing to its antiseptic properties), a very bad medium for the multiplication of germs or microbes of any sort. Salicin also has a marked effect on the whole nervous system. May it not, therefore, so to say, attack the disease in its headquarters, while its well-known antifebrile action reduces the temperature and alleviates the symptoms? In conclusion, whatever cause may be assigned for the results I have set forth above, I can recommend this drug freely administered as a safe, sure, and successful method of treatment for a very troublesome ailment.

Sussex-gardens, W.

GANGRENE OF LUNG FOLLOWING ACUTE LOBAR PNEUMONIA IN A BOY; RECOVERY.

BY H. WALTER SYERS, M.D.,
PHYSICIAN TO OUT-PATIENTS, GREAT NORTHERN CENTRAL HOSPITAL.

THE termination of acute lobar pneumonia in gangrene of the lung is admittedly a rare occurrence. Still more rare is it in the case of a previously healthy child, and very few cases are on record in which it has ended in recovery. Gangrene of the lung is referred to by Dr. Walshe as "one of the very rarest terminations of pneumonia."[1] Drs. Sturges and Coupland say, speaking on the same subject: "The rarity with which gangrene occurs as a sequel of acute pneumonia is well illustrated by the returns furnished to the Collective Investigation Committee. Out of the 1065 cases so returned, gangrene resulted only in two, both being old subjects and one a drunkard."[2] There can, I think, be no doubt that the following case is one of gangrene occurring very early in the course of lobar pneumonia, and rapidly leading to the formation of a cavity which was recognised by the usual physical signs of such a condition. The question of empyema was of course entertained at an early period of the case, but the evidence of such collection in the pleural cavity was never strong, and this explanation of the symptoms was soon put on one side. Why in a healthy boy of eleven an acute pneumonia should result in gangrene is a question more easily asked than answered. There was no evidence whatever of septic infection, and the only probable explanation appears to be that the intensity of the inflammation at the outset was such as to lead to rapid death of what was probably only a small portion of lung. The very satisfactory recovery of the patient is also a remarkable circumstance. Dr. Walshe says:[3] "The prognosis of gangrene of the lung cannot be held to be absolutely fatal," and he regards one-twelfth of the number of cases as altogether too high an estimate of the proportion of recoveries. For the early notes of the case I am indebted to Dr. Cribb of Highbury.

R. C——, aged eleven, schoolboy; admitted to the Great Northern Central Hospital on Sept. 10th, 1890. The patient's previous health had been in all respects good. The family history was unimportant. On Aug. 30th, being in his usual good health, he went to the Zoological Gardens, where he lost his cap and came home bareheaded. Shortly after his return he had a distinct rigor. The next day (31st) he complained of headache and nausea. On Sept. 1st he went to school, but was sent home by the teacher as he was too unwell to attend. His face was flushed, he had lost appetite, and had slight cough. On Sept. 6th he was worse, delirious, and complained of pain on the right side of the chest. He was first seen by Dr. Cribb on Sept. 7th. He was then very short of breath, and complained of severe pain in the right axillary region. Temperature was 102°. The right chest was dull on percussion over the lower lobe, and as far as the angle of the scapula, the breathing in the same region being tubular. During the night he raised himself in bed suddenly, and began coughing and retching, throwing up a quantity of extremely offensive pus, estimated by the mother as being enough to fill a breakfast cup in the total amount, for he continued to expectorate small quantities of similar matter during the night and the next morning. On admission on Sept. 10th he had a distressed expression, with obvious movement of the alæ nasi. The pulse was 100; respiration 35. He complained of pain in the right side of the chest on deep inspiration. The tongue was moist; no sordes. There was slight cough, with fetid expectoration. There were physical signs of consolidation of the right lower lobe, and much pleural friction was audible in the right lateral region. The temperature on admission was 101·8°. During the next few days his temperature varied between 101° and 102°, and on the 14th was normal. During this time he continued to expectorate large quantities of excessively fetid purulent matter, the fetor being that characteristic of gangrene. The breath also had the same odour, which was greatly intensified by coughing. At this time signs of cavity began to present themselves at the apex of the right lower lobe—cavernous breath-sounds, gurgling, pectoriloquy. At the same time the remainder of the lung showed dulness on percussion and crepitation. On the 16th the temperature was 101°. He was now in a very exhausted condition, greatly emaciated, and sweated freely at night. The sputa of gangrenous odour continued to be expectorated in large quantity. Microscopical examination of the expectoration showed the presence of pus-corpuscles and elastic fibres. The temperature varied between 100° and 102° until Sept. 22nd, when it fell to normal, but speedily rose again. On the 29th the temperature rose from 98° to 103·4°, but shortly afterwards fell. After this date a marked improvement occurred. On Oct. 6th the fetor was still present, but less marked, and the expectoration was not so abundant. At the same time the signs of cavity became gradually less obvious over the apex of the right lower lobe. By Oct. 10th the temperature had fallen to normal, and over the right back the only abnormal physical signs were dulness on percussion and some crepitation. Bronchial breathing was limited to the apex of the right lower lobe. The improvement was now rapid and great. The expectoration entirely ceased, and he rapidly gained in weight. A few days later there were no moist sounds anywhere, except at the apex of the right lower lobe. Examination on Oct. 27th showed defective resonance over the right lower lobe, but with neither bronchial breathing nor crepitation. He was now up and about, had a good appetite, and had gained flesh, being indeed well. A few days later he left the hospital for a convalescent home.

Devonshire-street, W.

[1] Diseases of Lungs and Heart, second edition, p. 421.
[2] Sturges and Coupland: Pneumonia, second edition, p. 128.
[3] Op. cit., p. 458.

SIMPLE PERFORATING ULCER OF SIGMOID PRODUCING A UNIQUE PELVIC SWELLING, AND COEXISTING WITH ALVEOLAR CANCER OF THE BODY OF THE UTERUS.

BY JAMES OLIVER, M.D., F.R.S.EDIN.

B. B——, aged fifty-seven and single, came under my care on March 14th, 1891. She began to menstruate at the age of fourteen, and the discharge, which had always been free, had usually lasted seven days. Menstruation ceased ten years ago. For eighteen months the patient has complained of a more or less constant discharge from the vagina. For six months it was merely tinged with blood,

but during the last twelve months it has been distinctly more bloody, and the discharge itself has been gradually increasing in amount. It has never been offensive. For a month the patient has complained of pain all over the lower part of the stomach. In the morning when she gets up she has no pain. It comes on, however, after twelve or one o'clock midday, and gradually gets worse as the day wanes, unless she assumes the supine position. So long as she lies on her back she feels comfortable, and is quite free from pain. There is neither bladder nor rectal trouble. Physical signs: There is nothing to note abdominally. The cervix uteri is located towards the left side of the pelvis. The os is small and healthy. A small pyriform swelling is felt lying on the pelvic floor in front of the cervix. This swelling can be defined by bimanual examination. When it is pressed gently between the internal and external examining fingers the patient says she experiences the same pain that she has now complained of for one month. The swelling is cystic apparently, and although it is in close apposition with the uterus, it is distinct from the latter. The uterus is not enlarged. It was difficult to form an opinion regarding this case. Before a digital examination of the pelvis I was convinced that the hæmorrhage was most probably due to some new growth about the cervix or in the body of the uterus. The physical signs, however, which I noted, at once created a doubt regarding the tenability of this conclusion. The uterus was not enlarged and the cervix was healthy. The pain was apparently due to the swelling on the pelvic floor, for when it was manipulated, the pain which the patient had now complained of for one month was at once experienced. As the patient had ceased menstruating at the age of forty-seven (eight years and a half prior to the occurrence of the present discharge), it was impossible to understand how the hæmorrhagic discharge could in any way be connected with the small swelling felt on the pelvic floor. The discharge had been in existence eighteen months, whilst the pain had only been complained of for four weeks, and, besides, it was difficult to say what might possibly be the nature of the pelvic swelling. The actual condition of affairs, however, was soon revealed, for the patient died in a state of collapse on May 22nd—i.e., nine weeks after the day on which I first saw her. During these nine weeks the physical signs had remained unaltered.

Necropsy.—On opening the abdomen, fæcal matter was found free in the peritoneal sac. The contents of the gut had been extravasated through an ovoid opening in the sigmoid about its middle third. The ulcer in the large bowel, which was perfectly clean and simple, measured two inches in the length of the gut, and one inch transversely. It was apparent that the contents of the gut were not at first thrown out into the general cavity of the peritoneum, but were confined in a small cavity formed by the anterior surface of the left broad ligament, the left border of the uterus, the anterior and left walls of the pelvis, and a somewhat long sigmoid. Both ovaries and both tubes presented old adhesions, but were otherwise easily defined. The uterus, which was soft and flabby, was only very slightly enlarged. The cervix was healthy. On opening the cavity of the uterus, a soft shreddy and cauliflower-like neoplasm, about the size of a split walnut, was detected growing from the posterior wall close to the fundus. The lower third of the body of the uterus and the cervical canal were healthy. On inspection, the growth appeared to be superficial; the microscope, however, proved that the uterine wall in the neighbourhood of the growth was infiltrated with disease to the extent of one-third of its thickness. Neither the pelvic nor lumbar glands were enlarged; nor was there any evidence of secondary deposits elsewhere. The sections of the uterine growth presented the appearances of an alveolar sarcoma.

The small swelling felt on the pelvic floor in front of the cervix was undoubtedly formed by fæcal matter, which had escaped from the sigmoid, but which was in the first instance confined by the structures I have already enumerated. This explains now how the slightest pressure on this swelling created exactly the same pain as the patient had for one month complained of so long as she maintained a more or less erect position. It is somewhat strange, however, that we had during life no evidence of irritation about the gut. There was no disturbance of the tongue, neither was there noted any frequent desire to go to stool. The vaginal discharge was due to the neoplasm growing from the posterior wall of the uterus, and as this had been complained of for eighteen months and the growth had not attained any great size, I would from a clinical point of view be inclined to consider the tumour as belonging to the scirrhous form of cancer, although a pathologist would look upon it as an alveolar sarcoma.

Gordon-square, W.C.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

INJURY TO THE ORBIT; OPERATION.

BY J. F. BULLAR, M.B., F.R.C.S. ENG.

C. C——, aged fifty-six, came to the Southampton Eye and Ear Hospital on September 5th, 1890, and gave the following history:—Thirty-seven years ago he had a small wound at the outer end of the right brow from a piece of stick thrown at him. The wound never healed properly and a small sore remained, which was removed about twenty years ago. After this operation he got well, and remained so till five years ago, when a growth appeared at the outer corner of the right eye on the lid. Part of the upper lid was then removed. After this he could not shut his eye completely. The wound never got well, and three years ago the eye having become involved was removed. When he presented himself, the inner two-thirds of each lid and the conjunctiva between them were present. There was a small nodule having the appearance of epithelioma at the outer end of the upper tarsal cartilage and some hard and superficially ulcerated tissue in a scar that ran downwards and outwards for about an inch from the outer end of the remaining portion of the lower lid. The lids were somewhat inflamed and the cheek below the orbit was irritated by the moisture which found its way from the remains of the conjunctival sac. On Oct. 29th he was admitted as an in-patient, and on Nov. 1st I removed the edges of the lids, the whole of the conjunctiva, and the scar below the orbit. Thinking that the lacrymal gland might give trouble if it were buried beneath the skin, I enlarged the incision with the intention of removing it, but as I was unable to feel it I united the whole wound with sutures and put on a firm pad. The skin united by first intention, but there was subsequently some formation of pus in the orbit, which was discharged at the inner canthus. On Nov. 25th a small sinus only remained, with hardly any discharge, and on Dec. 10th all was soundly healed, and has remained so to the present time. The skin being continuous over the orbit no source of irritation or discomfort remains, and the patient is very pleased with his condition. I shall be much interested to learn from any member of the profession who may have experience of a similar operation whether the removal of the lacrymal gland is necessary under such circumstances, or whether, if it is buried, it will remain quiet. Artificial eyes, when not changed sufficiently, often give trouble, and if they are not used after enucleation has been performed, there is often troublesome blepharitis and entropion. The result of this operation is so satisfactofy as regards comfort, that it might possibly be used with advantage in the case of persons who are likely to have a difficulty in obtaining artificial eyes at suitable intervals, or where so much of the lids have to be removed as to make it impossible to use a glass eye.

Southampton.

EXCISION OF FISTULA IN ANO.

BY A. S. BARLING, M.R.C.S., L.R.C.P.LOND.,
HOUSE SURGEON, NORTH STAFFORDSHIRE INFIRMARY, STOKE-ON-TRENT.

FISTULA IN ANO is one of those diseases which do not tend to spontaneous cure. Certain slight cases doubtless get well if properly dressed, but in the large majority operative interference is necessary for their relief. The almost universal practice is to lay the sinus open, at the same time dividing the sphincter, and then to pack the gaping wound in such a way as to ensure its healing from the bottom. This mode of treatment is, I venture to submit, neither so

simple nor yet so uniformly successful as we are generally given to understand. To carry it to the desired end it is almost essential that the patient should be kept in bed, the treatment not infrequently lasting for some months. I have traced several ordinary cases of fistula after their discharge from hospital, and in almost all, the results have been disappointing. The average history seems to be somewhat as follows:—The patient is operated on, and then dressed in hospital for a few weeks, during which time he makes rapid progress. He then begins to find the continuous rest irksome, and either on this account or because his bed is wanted he becomes an out-patient. His friends are instructed, or even shown, how to dress the wound, and he goes out. He attends for some time without making much improvement, and then is lost sight of. Some months elapse, when he again appears either very much in the same state as that in which he was last seen, or, worse still, with another fistula due to the bridging over of the wound. This is no fanciful picture, but one based on the careful observation of many cases. Such being the facts, the question naturally arises, Can anything be done to shorten the time of cure without endangering its efficacy? Obviously the great drawback is that a large open wound is left to heal by granulation, and so must of necessity take a long time. Why should the wound be left open? Is it not possible, after removing all the granulation tissue, to sew the wound up with deep stitches, as is done in plastic operations for ruptured perineum? I have done this with very successful results, and will relate one recent case.

The patient was admitted into the North Staffordshire Infirmary, under the care of Mr. Alcock, suffering from a complete fistula, the external opening of which was 1½ in. from the anal orifice, the internal about an inch up the rectum. I began the operation by thoroughly stretching the sphincter, dilating it first by means of a dilator and then with fingers until I could introduce my closed fist into the bowel, thus completely paralysing the muscle. I then slit up the fistula in the usual way. The granulating tract was cut and scraped away until two clean raw surfaces were obtained; these were then brought together over their whole extent by four silk stitches, extending deeply into the tissues below the wound, so that the bottom of the wound should be closed as well as the part nearer the skin. The silk had been boiled, and was put in by means of a curved Hagedorn's needle. Nothing untoward happened. The stitches were removed on the tenth day, when the wound was found to have healed soundly by first intention. Now, here is a man who was well in less than a fortnight after this operation, who, I believe, under ordinary treatment would not have been cured for at least two months. Further, he had hardly any pain after the operation. The bowels did not move for a week, and the first motion, brought about by repeated small doses of cascara, was not painful. The success of the proceedings is very largely due to attention to the following details: (1) Paralyse the sphincter; (2) clear away all granulations; (3) put the stitches in very carefully so as to secure accurate coaptation of the surfaces over their whole extent; (4) use aseptic silk so as to guard against the possibility of stitch abscess. Doubtless many surgeons have done this operation, and I shall be disappointed if I do not learn that it was the common mode of procedure with Hippocrates, but as I do not at present remember to have seen it described I venture to call attention to it as worthy of notice.

Stoke-on-Trent.

COLLES' FRACTURE, WITH DISLOCATION OF THE ULNA OF SEVENTEEN WEEKS' STANDING.

BY P. W. YOUNG, L.R.C.P., L.R.C.S. EDIN., L.F.P.S. GLAS.

THE following case is interesting on account of the length of time elapsing between injury and treatment:—

On Thursday evening, June 18th, I was asked to see a lady who had met with an accident, and who had come to recruit her health by a short stay in this neighbourhood. The history of the case is briefly as follows:—Seventeen weeks previously, while coming downstairs, she slipped, and fell heavily with the right arm and hand beneath the body. She was seen two hours later by two medical men, but no treatment was prescribed to reduce the swelling, and no diagnosis made although the patient was suffering very great pain. Later on the same day the injured limb was put up in splints and kept in this position until six weeks ago, when a bandage was substituted. On examination I found, as I had anticipated, an old Colles' fracture of the radius badly united, the upper fragment tilted backwards with a projection on the forearm back of the wrist, and considerable deviation of the hand from the axis of the limb. The head of the ulna, with its articular facet, had been driven downwards, forwards, and to the outer side beneath the triangular fibro-cartilage and annular ligament, and was still in this position. The power of pronation and supination was lost, and very great pain was experienced on making the slightest movement with the hand; there was complete loss of power in the tendons of the fingers, and numbness extending up the forearm in the course of the flexor carpi ulnaris muscle and ulnar nerve. The following morning I reduced the dislocation with considerable difficulty, the head of the ulna, owing to adhesions being somewhat troublesome to return to its normal position. I kept the arm in splints for a few days, replacing them by a leather bracelet lined with wash-leather to give support to the wrist. Since then my patient has been using the battery twice daily. Complete power has almost returned to both wrist and hand, there is perfect motion in the joint with absence of pain, and I anticipate a most successful result to a case so long previously neglected.

Coupar Angus.

NOTE ON THE VALUE OF PEROXIDE OF HYDROGEN IN GYNÆCOLOGY.

BY ALEXANDER DUKE, F.R.C.S.I. DUB., &C.

THE value of peroxide of hydrogen as a detergent and purifier has long been known, and when applied as a dressing to foul ulcers (syphilitic or otherwise) has given good results. Some time since, while treating a case of sepsis in which pus was freely discharging from abraded surface on vaginal wall, I thought I would try the effect of the peroxide. I had previously had the part twice daily syringed with weak solutions of carbolic acid, iodine, sanitas, and Condy's fluid without much effect. I found the solution of peroxide act as a charm in checking the secretion gradually, cleansing and healing the abraded surface, and producing no irritation; and I venture to suggest it as a suitable application, more especially to the female genital tract. One teaspoonful added to half a pint of warm water gradually increased in strength will, I feel sure, be found a valuable addition to the many antiseptics used in such cases. I may also suggest that in all cases where there are symptoms denoting septic absorption during the lying-in period a close examination of the vaginal walls and cervix uteri for tear or abrasion should be made, and, when discovered, the part thoroughly cleansed and cauterised with strong carbolic acid. I believe I can attribute the recovery of more than one patient, whom I had been called to see in consultation, to the adoption of this plan. But I much prefer the prevention of such accident by flushing the uterus with hot water directly after labour, examining at the same time for any tear or injury, and cauterising or suturing the surface then and there. I hope the suggestions thrown out may be found of value in practice by both the obstetrician and gynæcologist, and contribute in some measure to the alleviation of suffering.

Dublin.

METROPOLITAN ASYLUMS BOARD.—At the usual weekly meeting of this Board on Saturday a letter was read from the Local Government Board, enclosing a report from the Lunacy Commissioners, who had visited the Caterham Asylum. So far from considering the institution over-staffed, the Commissioners urged that the number of attendants should be augmented, in order that the patients, where possible, might be exercised and employed. The central authority, in consequence of the small number of boys now on board the training ship *Exmouth*, has sanctioned the application of the Metropolitan Asylums Board to allow the Board to contract for the reception of pauper boys from unions not within the metropolis, so as to keep up the crew to 600.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

THREE CASES OF SUPPURATION OCCURRING IN JOINTS AFFECTED WITH OSTEO-ARTHRITIS; REMARKS.

(Under the care of Mr. MANSELL-MOULLIN.)

THE three cases which we bring forward below are important contributions to the pathology of joint diseases. It is very rare to find suppuration in a joint affected with rheumatoid arthritis. Our readers will, however, be struck with the great similarity which these cases present to some described by Mr. Morrant Baker in his papers on the Formation of Synovial Cysts in connexion with Joints.[1] Several of the patients to whose cases he alluded were apparently suffering from osteo-arthritis, the cause, however, of the suppuration met with being in most surgical interference with the cysts without sufficient precautions against septic infection. He writes:[2] "Hitherto I have not discovered any relationship between the form of osteo-arthritis with which some of these synovial cysts are associated and locomotor ataxy, but I suspect that in some of them a relationship will be found to exist." We refer our readers to the remarks by Mr. Moullin.

CASE 1. A. O——, a poorly nourished woman, sixty-five years of age, was admitted into the London Hospital on Oct. 22nd, 1888, suffering from disease of the right elbow. The patient stated that her right arm had been stiff and weak for some years. Shortly before Christmas the elbow became painful and swollen. In February an abscess broke on the outer side of the joint, giving her relief for a time. A month or two later others formed, and at length the arm became so helpless and the pain so severe and continuous that she was willing to have anything done. On examination, the muscles of the arm and forearm were greatly wasted; there were four or five discharging sinuses around the joint, the elbow was much swollen, the skin red and undermined, and a probe passed into the sinuses entered the joint directly, touching bare bone in several places. Extension could be carried to an angle of 135 degrees, although with some pain; flexion was stopped abruptly at a right angle, and pronation and supination were both very limited. The general health of the patient was good, although she was rather feeble and her appetite poor. The urine was of fair specific gravity, and did not contain any albumen. The opposite elbow, the knees and shoulders all showed traces, more or less well marked, of osteo-arthritis. Excision was performed on Oct. 29th by the ordinary posterior incision, and the arm placed upon an angular splint. The temperature remained normal, and the dressings were not disturbed until the tenth day, when the drainage-tube and sutures were removed. At the next dressing, ten days later, the wound was soundly healed with the exception of two points that corresponded to old sinuses, and passive motion was commenced. At first the muscles seemed to have lost all power, but under massage and galvanism their strength gradually returned, until twelve months after the operation extension was perfect, flexion could be carried far enough for the patient to feed herself, and the power of pronation and supination was beginning to return. The portions of bone removed showed the characteristic changes of advanced osteo-arthritis. The head of the radius was expanded into a kind of mushroom shape, the articular cartilage was gone, the corresponding facet on the humerus had disappeared, and above it a fresh one had been formed (explaining the difficulty of flexion). The olecranon was expanded in the same way, and its upper end prolonged forwards into a beak. The lower end of the humerus was bare and covered with grooves cut out of the eburnated bone, and around the margins of the joint were outgrowths and fringes projecting from beneath the synovial lining and concealing wedge-shaped osteophytes, some attached to the bone, others lying by themselves suspended in the tough fibrous tissue. The joint cavity contained a small quantity of puriform fluid, which escaped at the time of the operation. Its surface was fairly smooth, but the shape was very irregular, and in places the lining membrane was thickened and gelatinous. Around the joint the loose cellular tissue was filled with lymph, here and there breaking down into pus; the ligaments and fasciæ were ragged and softened—in short, there were all the changes usually met with in subacute suppurative arthritis. There was no sign of caseation in any part; the bones, although atrophied from disease, were hard and dense on the surface, and there was no reason to suspect the presence of tubercular disease. Suppuration had apparently commenced either outside the joint, in the peri-articular tissues, or in some outlying part of the synovial cavity. From this it had spread over the whole of the interior, but although there were four or five open sinuses, and every facility for the occurrence of septic decomposition, the articular ends of the bones and (to a somewhat less extent) the ligamentous structures around had been able to hold their own against the pyogenic micro-organisms.

CASE 2.—B. S——, a short, rather stout man, of florid complexion, sixty-two years of age, applied for admission into the London Hospital in August, 1887, on account of the stiffness of his shoulder, which interfered with his work as a compositor. For five-and-twenty years he had suffered off and on from rheumatism or rheumatic gout; rheumatic fever he had never had; often he had been laid up for months; nearly every joint in his body had been affected, and his hands and knees were crippled and stiffened. The last attack, which began about three months before, had affected the right shoulder almost exclusively. At first the pain was very great and the inflammation severe; after a few weeks this subsided, but the joint became fixed, so that he could scarcely separate his elbow from his side, and recently a swelling had made its appearance as well. On examination the muscles around the right shoulder were wasted, the infra-clavicular fossa was unusually full, and about half way down the arm on the inner side of the biceps was a long fusiform swelling over which the skin was reddened and œdematous. Fluctuation was distinct not only in each of the swellings, but from one to the other. Voluntary abduction of the arm was impossible, and flexion very limited. Under an anæsthetic the range was a little wider, but with a great amount of crackling and grating. The swelling down the inner side of the arm was evidently a hernial protrusion from the synovial cavity following the course of the biceps tendon; the other may have been a similar protrusion, or simply a distension of the bursa under the subscapularis. A few days later the skin over the swelling on the inner side of the arm gave way, and many ounces of a thin watery fluid, mixed with pus, poured out, emptying both sacs. The patient remained under observation for more than a year, but no further change took place. The muscles wasted more and more, the joint became quite stiff; the opening did not close, and a small quantity of semi-purulent fluid drained out from it every day, but the general health did not suffer, the temperature never rose, and the suppurative process appeared unable to affect the joint itself.

CASE 3.—C. T——, sixty-three years of age, was admitted into hospital on Feb. 11th, 1891, suffering from disease of the right shoulder. The patient, who was much emaciated and of a peculiar bronzed complexion (so as to suggest Addison's disease) stated that from her childhood she had been constantly liable to rheumatism in all her joints. About five months before admission she was seized with what she was told was rheumatic gout; this settled in her right shoulder, which began to enlarge almost at once, and became the seat of severe pain. From that time she had not been able to use her right hand; the swelling had never gone down; the pain had grown steadily worse, and her health had begun to give way. On examination there was a large abscess under the deltoid, surrounding the joint, and beginning to point on the posterior aspect, below the margin of the muscle; communication with the synovial cavity was believed to exist, but was not certain. Many of the other joints were stiff,

[1] St. Bartholomew's Hospital Reports, 1874, p. 245. Ibid., 1885.
[2] Ibid., 1885, p. 189.

and lips could be felt on the articular ends of the femora. The condition of the patient was very unsatisfactory; the temperature hectic, with a considerable evening rise, and the urine contained a trace of albumen. On Feb. 17th the abscess was opened and a large quantity of pus evacuated. The cavity was exceedingly irregular in shape, divided by septa into many almost separate sacs, and communicated by a small round opening with the inner and under aspect of the joint. The greater part corresponded with the subdeltoid bursa; the rest was either formed by the enlargement of the subscapular one or by a hernial protrusion from the synovial cavity. The partitions were broken down, the contents washed out, and drainage-tubes inserted, one in the original incision, another lower down in the axilla. For some days the temperature was normal, but it soon became clear that drainage was unsatisfactory, and that absorption had commenced again. On March 17th the head of the bone was excised through a vertical anterior incision, and the cavity thoroughly opened up. The bone was soft and atrophied in the centre, but not more than would be accounted for by the prolonged disease. The cartilage had gone, the surface was hard and polished, except at one or two spots on the margin, from which the articular lamella had been eaten away; the lining was still smooth over the greater part of the interior, and the upper and back part of the capsule scarcely affected. Below the tissues were soft and infiltrated with lymph. There was no caseous deposit or thick mass of granulation tissue, such as is usually found in tubercular arthritis. The temperature fell to normal at once, and only rose to 99° on three occasions in the course of the next three weeks; but the same evening an attack of diarrhœa, of which there had been one or two indications previously, set in; and in spite of all that could be done the patient was reduced to such a state of exhaustion that death ensued on the twenty-fifth day after the last operation. Four days before the end the temperature rose to 101°, but with the exception of some suppuration at one point (probably accounting for this) the wound progressed as well as could be expected.

Necropsy.—Extensive ulceration was found in the colon and rectum. Probably it was tubercular in origin. There were old tubercular deposits in the lungs, and a small patch of recent pleurisy, but it differed considerably in its appearance from the ordinary type.

Remarks by Mr. MOULLIN.—Joints affected with osteo-arthritis are said never to suppurate. These three cases are of interest, as showing—(1) That under certain conditions (of which the presence of synovial diverticula is one) suppuration may occur; and (2) that, speaking generally, the tissues of joints affected by this disease are capable of resisting the action of pyogenic micro-organisms in a very unusual degree. In the first two cases there does not appear to have been any accessory agent. The micro-organisms gained access to the tissues in some way (probably through the blood), and by slow degrees broke down their power of resistance. In the third case events may have followed the same course, but from the post-mortem appearances it is more likely that tubercle bacilli gained a foot-hold first, and that it was not until they had worked their usual effect that the pyogenic germs were able to induce suppuration. In all three the destructive process commenced in the soft parts, either in hernial protrusions of the synovial cavity, in bursæ communicating with it, or in the soft peri-articular connective tissue, and only involved the general cavity secondarily; and in all alike the bones, the capsule, and the ligaments were but slightly affected, as if, in spite of the impairment of nutrition that invariably accompanies inflammation, whether rheumatic or not, the condensation characteristic of this special disorder had given them power to resist. Possibly the same feature may account for the absence of any sign of hectic in the first two cases. Although there were open sinuses leading by devious routes into the interior of the joints, there was no fever, and presumably therefore no absorption of the products of septic decomposition. In the third case in which this complication was present this occurrence is accounted for by the extreme complexity of the abscess sac and the antecedent changes effected in the tissues around by the action of the tubercle bacilli. If it were needed, cases of this kind would afford an additional argument in favour of the practice of excising synovial diverticula or hernial protrusions in connexion with joints at an early stage of their development, and closing the aperture of communication by suture or ligature. I have performed this operation in connexion with the knee-joint on several occasions with the happiest results. If left to themselves, sacs of this kind are bound by the ordinary laws of hydrostatic pressure to enlarge more and more rapidly; their walls become thinner; at length they approach the surface, perhaps far away from their original starting-point; and then they either break of themselves or become inflamed owing to the friction or the tension they cause, and fall an easy prey to pyogenic germs. Occasionally, it is true, as in the second case quoted above, no ill result ensues, but such good fortune cannot be relied upon, or even expected.

MIDDLESEX HOSPITAL.

SOME RECENT CASES OF INJURIES TO THE HEAD—(*concluded*).

(Under the care of Mr. HULKE.)

WE conclude this week the interesting series of injuries to the head which have been recently under the care of Mr. Hulke; the earlier records of cases will be found at pp. 15 and 71 of our columns. These have included two cases of compound comminuted fracture of the vault of the skull in which trephining was required; cases of undoubted fracture of the base; and others in which the exact lesion could not be accurately stated. The cases described below are examples of the more severe forms of concussion of the brain met with, not accompanied by scalp wound or sufficient evidence to indicate fracture of the vault or of the base, or gross injury to the cerebral substance. Reported from notes made by Mr. G. W. Soulby, house surgeon, and the dressers.

CASE 6. *Suspected fracture of the middle fossa of the base of the skull; recovery.*—G. G——, a labourer aged twenty, a muscular, healthy man, on April 7th last fell down the well of a lift off a landing on the third storey of a house. His mates, who went to his aid, found him quite unconscious, but he regained consciousness as they brought him, directly after the accident, to the hospital. Blood was oozing from his right ear and right nostril. The surface of his body was cold and pale. He said he had pain in his head and at the bottom of his back. He soon rallied from shock. In the evening retention supervened, and the catheter was required till the 12th. On the 16th there was slight conjunctivitis of the right eye. On the 23rd very obvious palsy of the right facial nerve was noted. The ticking of a watch was not heard until the watch touched the mastoid process. The membrana tympani was concealed by a blood-clot, which it was thought imprudent to disturb.—27th: Palsy of facial nerve less.—May 5th: The right eye can be closed nearly as well as the left, and the palsy of the other facial muscles has disappeared. The deafness continues. At his urgent desire he was allowed to return home.

CASE 7.—*Severe concussion; scalp wound; recovery.*—H. F——, aged twenty-four, a carpenter, a muscular, healthy man, was admitted into Founder's Ward on April 8th, having fallen headlong from a scaffold twenty-eight feet high. He had a scalp wound five inches long crossing the occiput, laying bare the bone over an area of one inch, and other lesser superficial wounds. His mind was dazed, he very imperfectly understood what was occurring, and would not allow the wound to be examined or dressed, and he was so violent that it was necessary to give him ether. No fracture was detected. The wound was well cleansed with corrosive sublimate solution, closed with sutures, and covered with an antiseptic dressing.—9th: Quite unconscious, but so noisy that he had to be isolated.—10th: Fæces voided in bed; retention of urine. Very restless; lies with legs drawn up and thighs flexed on abdomen.—13th: Consciousness returning. Has regained control over his urinary bladder.—14th: Quite conscious, but lies in a torpid state, and when spoken to he is very irritable.—18th: The scalp wound is nearly healed. He still lies with his legs and thighs flexed and his head retracted on his shoulders—20th: Improved. Irritability gone; sleeps well; appetite good. Pulse and temperature normal.—30th: Was allowed to get up.—May 5th: Convalescent, and dismissed.

CASE 8.—*Very severe concussion (fracture of base?); recovery.*—J. T. B——, aged sixteen, a hairdresser, a well-

grown lad, was brought to the hospital on April 20th early in the forenoon in a cab. He was said just previously to have been thrown on to his head by a horse, which fell with him and then rolled upon him. In the receiving-room he vomited some blood-tinged matters. He was perfectly unconscious from the moment of the accident. The surface of his body felt cold. His face was pale, with the exception of the lips, tips of the ears, which were slightly blue, and of the eyelids, which were very swollen and ecchymosed. His lips were stained with blood, which continued to ooze from the left nostril. A large, puffy blood-swelling occupied the left temporal fossa. His right forearm was slightly flexed, and a distinct resistance of its flexors was observed on extending it. He occasionally lifted the right hand to his mouth and head, particularly after this limb had been disturbed. The left upper limb was relaxed, and it fell flaccidly on the bed when raised. Slight muscular quiverings were occasionally noticed in it. At 12 midnight the distension of the eyelids with effused blood had become greater, but the ocular conjunctivæ continued free from stain, and the temporal swelling was larger. Temperature 101·8° F; pulse 128; respiration 52.—21st, 10 A.M.: Restless; twitching of right arm and leg. Temperature normal; pulse 92; respiration 28. He micturated, emptying the bladder completely, and also defecates in bed. The 22nd passed without marked change in his condition; but in the evening he was first able to swallow small quantities of liquid placed with a tube within the grasp of the fauces. From this date a slowly progressive improvement took place. He was soon able to take a sufficient amount of liquid food. On May 4th he showed some recognition when spoken to by the sister in whose charge he was, and he soon after this gave monosyllabic replies to simple questions and injunctions. He continued extremely restless, and frequently tried to leave his bed, but he was easily restrained. His eyes, which for several days immediately after the accident had been closed by the great swelling of their lids, were now generally open, staringly so, as those of a person asleep with open eyes, but he never winked or shrank or otherwise evinced perception when an object was suddenly brought close before the eye. Except, perhaps, slight capillary injection of the disc of the optic nerve and fulness of the retinal veins in the right eye, no morbid appearances were discernible with the ophthalmoscope in either eye.—May 9th: Intelligence improving. He answers correctly, but slowly, as if it took him some moments to rightly comprehend what was said. Appetite ravenous. Temperature 97·4°; pulse 54; respiration 20. He complains of a sense of "thickness" in his forehead. He now began to ask for the vessel when he wished to micturate.—16th: He still occasionally defecates in bed. He is now perfectly intelligent, and is to-day able to give an account of how the accident occurred.—19th: He sits up in bed, and he appears to take an interest in matters passing around him. His temperature, for some time abnormally low and pulse slow, are now normal.—26th: He has been up for several days, and may be regarded as convalescent.

Medical Societies.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a recent meeting of this Society the chair was occupied by Mr. H. E. Armstrong, President.

The Necessity for Clinical Instruction in Infectious Diseases as a Part of the Curriculum of the Medical Student.—The PRESIDENT, in opening a discussion on the above subject, insisted on the disadvantages under which young practitioners laboured from the almost entire absence of opportunities of studying infectious diseases in hospital. Many, indeed, derived all their knowledge of these diseases from books, and had never seen a case of typhus fever, small-pox, or even of scarlatina, until they met with them in their practice. They then found that typical cases were the exception, not the rule, and inevitably fell into errors of diagnosis involving danger to the public and discredit to themselves. Some men, from the want of early training in habits of observation, never acquired the power of differential diagnosis, and though the consequences of confusing scarlatina and diphtheria might not be serious, it was very different when the question lay between familiar and trifling ailments and dangerous diseases which the medical man knew only from books. To mistake varicella for small-pox was, to say the least, inconvenient, but to treat a case of small-pox as measles was disastrous. He had known eighty-five persons to have thus contracted small-pox, eight of them dying. Of sixteen cases notified in Newcastle as typhus fever, not one was really such. Delirium tremens had been reported as enteric fever, so had pleurisy with effusion. Several cases of pustular syphilides had been sent to the small-pox hospital, one of them twice within three weeks. It might be urged that diagnosis was more difficult in the dark and confined dwellings of the poor than in the wards of a hospital; but very often the previous history and the duration of the disease were sufficient to have excluded the diagnosis apart from the absence of all positive symptoms. Errors were occasionally unavoidable, but in some places full half of the notifications were incorrect; and at Glasgow, among 429 cases, 85 were not suffering from any infectious disease whatever. The Eastern Hospital in London, the Belvidere at Glasgow, and that at Newcastle were already open to students, and the only conceivable objection to the men availing themselves of them was the risk of infection to themselves or their families; but with ordinary precautions he had never known this to occur.—Dr. DUDFIELD stated that the Metropolitan Asylums Board would doubtless throw open the whole of their hospitals if medical students were only more willing to avail themselves of them. They gave board and residence for three months, with the title of assistant medical officer, but very few had accepted the offer.—Dr. SERGEANT thought that the medical officer of health might see with the practitioner in attendance every case about to be notified, but Dr. SYKES maintained that in London this would be quite impossible.—Dr. WHITELEGGE, when at Nottingham, had taken a middle course, meeting the attendant at his request whenever he was in doubt; he had thus avoided the sending to the hospital cases of varicella amounting to four-fifths of those supposed to be small-pox.—Dr. WILLOUGHBY referred to a paper he had read at another Society on Obscure and Anomalous Forms of Enteric Fever, in one case of which the diagnosis had been verified post mortem, though every positive symptom had been absent during life.

The Society then passed unanimously two resolutions affirming the expediency of the requirement by the General Medical Council of clinical instruction in infectious diseases as a compulsory subject in the ordinary curriculum of the student, and, as a means of meeting such demand, the opening for purposes of clinical teaching of hospitals and wards devoted to these diseases in all towns where there were medical schools.

London Manure and Diphtheria.—Dr. THRESH, in his paper, said that though there could be no question as to the desirability of the speedy removal of garbage of all kinds from the metropolis, the collection in yards and wharves invariably raised a storm of opposition. Since his appointment as medical officer of health to the Chelmsford and Maldon districts he had seen much of the effects of its employment on the land. Some was brought in barges to the towns near the coast, but in his own district it came by road. The stench was horrible, and could be perceived for two miles or more. It consisted of refuse from sausage manufactories, from fish shops and markets, of butchers' blood and offal, dead cats and fœtal calves, black slime (apparently from street gulleys), and filth of every description. Not unnaturally, the country people ascribed to it every outbreak of disease, though they never complained of the putrid fish bought on the coast, and largely used as manure. In some cases he could acquit the London manure, since the diseases had existed previously to its arrival; but the instances in which diarrhœa, foul sore-throats, diphtheria, and perhaps enteric fever, had broken out among the men employed in unloading it or in spreading it on the land, among children who had played near the heaps of muck, or in cottages adjoining the fields where it was used, these families and those in the neighbourhood having been till then free from any illness, were so numerous and clear that he could not but regard the manure as a factor, either as an actual vehicle of infection or by setting up a septic condition of the blood serving to call into activity microbes already present, though in a dormant state.—Dr. SYKES observed that the materials so

much used of late as litter in place of straw, such as sawdust, moss, and peat, &c., were overpoweringly offensive and pungent, probably from their not admitting of aeration.—Several metropolitan members considered Dr. Thresh's remarks to be of great value, as bearing on the question of the method of treatment of refuse and manure adopted by the local authorities in London.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Obstetrical Section was held on May 29th, the President, Mr. S. Mason, in the chair.

Ectopic Gestation.—Dr. W. J. SMYLY said he had met with six cases of this accident, all of them tubal. He accepted Mr. Tait's view as to the causation of this accident as probably the correct one in the majority of cases. In all the cases the tube ruptured early in pregnancy—five times into the peritoneal cavity, and once into the broad ligament. In the former case the result depended upon the condition of the peritoneum; if it were healthy, the patient would probably bleed to death unless the hæmorrhage were controlled by surgical interference, but where the intestines are agglutinated together by previous inflammation, the hæmorrhage occurs into a limited space, forming a hæmatocele, and thus arresting the hæmorrhage. The diagnosis of this condition before rupture is by no means impossible, but he had never had the opportunity, and could only confirm Mr. Tait's opinion that in these countries at least medical aid is not sought until after rupture has occurred. As to treatment, before rupture the large tube should be extirpated, but after quickening he should follow Mr. Tait's advice and wait until the child was viable. Experience, however, alone could decide whether it would not be better to wait until after the death of the fœtus. Case 1: The patient, who for a time had been fruitful, became sterile in consequence of an inflammatory attack following childbirth, and, having continued in this condition for seven years, became the subject of an extra-uterine gestation. This pregnancy evidently commenced in the right Fallopian tube, which burst about the third month, and after the ovum escaped into the subperitoneal connective tissue it continued to develop between the layers of the broad ligament up to the sixth month, when it died, and spurious labour occurred. After this all fœtal movement ceased, the breasts became flaccid, and the skin jaundiced. The latter was probably due to urobilin resulting from absorption of effused blood, and should have been a help towards a diagnosis. In October, 1890, two years after the death of the fœtus, she was taken into the Rotunda Hospital, and the tumour removed by abdominal section. The tumour (exhibited) was about the size of a large cocoa-nut, and one hand of the fœtus could be seen protruding upon the surface. Case 2: This patient, a prostitute, who had syphilis, was twenty-four years of age. She complained of pain in the hypogastrium, with a red discharge. She was septic on admission, with a large abdominal tumour supposed to be the pregnant uterus—it proved to be a putrid hæmatocele. Right tube, which had ruptured, was secured, and abdomen washed out. Patient died the same evening.—Case 3: Patient admitted to hospital with retro-uterine hæmatocele. Expectant treatment, followed after three weeks by putrefaction of the contents of cyst. Free evacuation per vaginam of putrid blood and fœtus. Attempt to remove placenta, followed by alarming hæmorrhage. Cavity washed out and drained. Death of patient from putrid absorption. The important question is, should extra-peritoneal hæmatoceles be interfered with surgically? Out of these five cases one was hopelessly septic when admitted, one became so after three weeks, but three recovered without a drawback.

Cysts in the Labia Minora.—Dr. BAGOT showed photographs and microscopical preparations taken from cysts occurring in the labia minora and vestibule. He stated that the occurrence of cysts of any size in these situations was so rare that they were of great interest. The case was as follows:—M. W——, aged twenty-three years, unmarried, was sent to him as she had been suffering from a tumour about the size of a small hen's egg, which projected from the vulva and caused her great inconvenience while walking or on trying to sit down quickly. The tumour involved both labia minora and the under surface of the clitoris. Its outer surface was smooth, with the exception of a projection on the inferior aspect caused by a small secondary cyst which sprang from that part. The urethra was quite free and the vaginal orifice normal. The hymen was intact. Dr. Bagot enucleated the tumour and closed the cut surface with a continuous catgut suture.

Porro's Operation.—Dr. BAGOT showed a uterus removed by Porro's operation from a woman for severe accidental hæmorrhage occurring about the eighth month of pregnancy. Dr. Bagot was called by one of the pupils of the hospital to see a patient living in a tenement house close to the hospital. On his arrival he found that she was almost collapsed, having had severe accidental hæmorrhage, at first concealed. The pulse was 148, very small and compressible. Her lips were quite blanched, and her pupils dilated. There were extreme jactitation and sighing respiration. The os, which was rigid and undilatable, admitted a finger easily. On pressing up the head the blood flowed freely out of the uterus. Labour had not set in, though she had all night suffered from severe distension pains in the uterus. Believing that, owing to her collapsed state, it would be impossible to deliver her alive by perforation followed either by version or extraction with the cranioclast, he at once performed Porro's operation, treating the pedicle extraperitoneally by means of Tait's serre-nœud and pedicle pins made out of two Peaslee's perineum needles, as he had not time to procure proper pedicle pins. The placenta was found at the operation to be completely detached, and the uterus was full of clots—the child of course was dead. Since then she has made a good recovery, being moved into the Rotunda Hospital on the fourth day after the operation. The serre-nœud being almost separated on the eighteenth day, he detached it completely with scissors, clipping the remaining portion of the pedicle through.

Notices of Books.

Bacteria and their Products. By G. SIMS WOODHEAD, M.D. Contemporary Science Series. Crown 8vo. Pp. 459. London: Walter Scott. 1891.—This is one of the latest volumes of the "Contemporary Science Series." The range of subjects in this "Series" is very large, and there can be little doubt that the readers will be drawn from very different grades of intellectual attainment. We must congratulate the publishers on having secured the services of so able a bacteriologist for this portion of their general design. Dr. Woodhead approaches his subject from the botanical rather than from the medical point of view. Commencing with an introduction, which to a considerable extent is necessarily historical, he proceeds at once to answer the question, "What are bacteria?" This is succeeded by a short history of bacteriology. Chapters on bacteria as causes of disease and on parasites and saprophytes follow. The relation of cholera, typhoid fever, tuberculosis, leprosy, actinomycosis, glanders, anthrax, tetanus, diphtheria, hydrophobia, and vaccination to similar organisms and their products is next considered. The "bacteria of the mouth," those of "colour and phosphorescence," together with the general distribution of such organisms in nature, are dealt with in the volume. A short chapter on poisonous alkaloids and albuminoids and an appendix on "methods" complete the work. Among the chapters on special bacteria everyone will probably turn first to that on "Tuberculosis." Dr. Woodhead is evidently an admirer of Koch, who cannot complain of unjust treatment. Concerning tuberculin the writer is necessarily more reticent. The chapter on cholera is a vigorous exposition of Koch's work and views; we think, however, the work of the English Commission might have received some notice. The growing custom of substituting mechanical reproductions of photographs for engravings is adhered to throughout. The idea is of course excellent, especially in works where

no expense is spared in rendering their reproduction accurate and effective. But where the book is issued in a cheap and popular form this plan is less satisfactory. The illustrations in the chapter on tuberculosis might almost have been omitted, so vague is the idea of the tubercle bacillus they will convey to the uninitiated. But little exception can be taken to the subject-matter of the book. In the case of such a young and rapidly progressing branch of science no two experts will agree on the exact statements which should be included or omitted, as the case may be. On the whole, we think Dr. Woodhead has exercised a sound judgment in the selection of his materials. To the embryonic bacteriologist that part of the appendix which deals with the diagnosis of organisms will be of great service. There are a good many typographical errors, but in no case are these of prime importance. Dr. Woodhead has undoubtedly given us an excellent summary of the present state of knowledge on the subject, and, considering the many difficulties which have beset his path, may certainly be congratulated on the volume he has produced.

Zoology Notes for Students of Medicine and Science. By ALEXANDER JOHNSTONE, F.G.S. Edinburgh: E. & S. Livingstone. Pp. 388.—This useful little manual is divided into three parts. The first part is devoted to General Morphology, Histology and Physiology, and to the Protozoa and Vermes; the second part treats of Vermes, Mollusca, and Arthropoda; and the third is occupied with the classes from Arthropoda to Man. The plan pursued is that a brief account of each class is given, then in succession the sub-classes and divisions are described, and finally a detailed account of some animal, as the anodonta amongst molluscs, and nephrops amongst crustacea. The descriptions, though short, are sufficiently accurate, but we venture to suggest to the author the advisability of giving the derivation of the uncouth appellations that have been bestowed on so many animals. For example, on the first page we open is the word *Enteropneusta*. A knowledge of the derivation would fix on the student's mind the remarkable feature of the position of its respiratory apparatus, which is scarcely emphasised enough in the text. The larva of the Balanoglossus—the Tornaria—is not referred to. We would further suggest a continuous paging throughout the book instead of in three parts as at present, and that an index should be added.

Die Blennorrhöe der Sexualorgane und ihre Complicationen. Nach dem Neuesten Wissenschaftlichen Standpunkte und Zahlreichen eigener Studien und Untersuchungen. Dargestellt von Dr. ERNEST FINGER, Docent an der Universität in Wien. Zweite Auflage. Leipzig und Wien: Franz Deuticke. 1891.—This is the second edition of a work well known on the Continent for the care with which it has been prepared. The author has taken pains to bring this edition well up to date, and he has succeeded in making it one of the best treatises on this important subject in any language. The teaching is scientific, clear, and precise, and the information full. There are nearly forty woodcuts—chiefly of instruments—scattered through the text, and five good lithographed plates at the end of the volume, which consists of just over 300 pages.

Ueber die Functionen der Grosshirnrinde. Gesammte Mittheilungen mit Anmerkungen von HERMANN MUNK, Professor an der Universität zu Berlin. Pp. 320. Berlin: August Hirschwald. 1890.—This volume constitutes a very serviceable *résumé* of the work that has been done in regard to the functions of the brain by the author during the last fourteen years. Dr. Munk reproduces no less than sixteen original memoirs which he has at different times read before various societies. He is in accord with most modern physiologists that localisation of function takes place in the brain, or, in other words, that there are certain regions of the cerebral cortex which are constructed to discharge certain definite functions, and he therefore admits a visual, an auditory, and an olfactory area, as well as an area or centre for common sensation. The volume before us not only contains the evidence on which he relies for the establishment of his views, but much polemical writing directed against Goltz and others who hold opinions different from his own. It is a treatise that should be read by all those who are interested in the later development of neurological science.

Glimpses of Nature. By ANDREW WILSON, F.R.C.S. Edin. London: Chatto and Windus.—Mr. Wilson, in the volume before us, makes no pretence of placing any fresh truths before his readers, or of giving a full or detailed statement concerning those topics of which he treats. There is, however, a charm about the work which will make it very acceptable to schoolboys, and implant in many youthful minds facts and fancies connected with the animate and inanimate world which will, in years to come, bring forth fruit abundantly.

New Invention.

AN IMPROVED CAUSTIC HOLDER.

THE ordinary caustic holder for the pocket case has many drawbacks. Those made of beaten silver are expensive, and those of other materials are not durable; while in all the point is hidden, and when wanted is often found to have become corroded, and therefore inefficient. On these grounds I have asked Messrs. Hockin, Wilson, and Co. to construct one which, I venture to think, is without these

disadvantages, and shows distinct improvements on the older forms. The case itself is made of hardened glass tubing, divided in the centre into two compartments. Into each is fitted an ordinary silver gilt quill, with a reversible vulcanite mount, rendered easily fixable and air-tight by a rubber collar. Different points may be kept in the different compartments—e.g., nitrate of silver and sulphate of copper. The materials of which it is made are indestructible by the caustics, and inexpensive. Being made of glass, the condition of the points can always be seen at a glance, and the size is such that it exactly fits the ordinary pocket case. I have had one in use for some months now, and have found it satisfactory in all respects.

South Croydon. H. WHITBY PHILLIPS, M.D.

COTTAGE HOSPITAL FOR GALASHIELS.—Last week it was resolved, at a public meeting held at Galashiels, to institute a Cottage Hospital for surgical and non-infectious cases of disease. It was announced that £1700 had been subscribed, and that when the subscriptions amounted to £2000 a meeting of the subscribers would be called, to consider the arrangements for founding the hospital.

THE LONDON MEDICAL STAFF CORPS.—This corps was inspected at the Chelsea Barracks on Saturday by Deputy Surgeon-General Lewer. Surgeon-Major Morton had on parade 402 of all ranks, forming five companies (the establishment of the corps), and these were not equalised, each company standing on its own strength. The corps was remarkably steady during the line inspection, which Deputy Surgeon-General Lewer made of a detailed character. The march past was well executed, and the inspection concluded with an exhibition of hospital work and picking up and tending wounded men on the field of battle. The inspecting officer expressed his satisfaction with the efficient manner in which all had been performed.

THE LANCET.

LONDON: SATURDAY, JULY 18, 1891.

THE decisions on the various arguments in favour of and in opposition to the formation of a new university in London, with powers to confer degrees, which had been advanced at length before a Committee of the Privy Council on June 29th, June 30th, and July 1st, were awaited with much interest and expectation. It was known that the conferences between the representatives of King's and University Colleges, of the Royal Colleges, and of the London medical schools, had been futile. The Teaching Colleges had offered to the two Royal Colleges a modified form of veto, but the latter bodies resolved to adhere to their demand to form the Faculty of Medicine by their respective Comitia and Council, and to have control over the curricula and examinations of that faculty in the proposed new university. The ten Medical Schools insisted on each of their schools being represented on the Council, and their delegates by a small majority supported the Royal Colleges in the claim to form the Faculty of Medicine, by which plan the four seats on the Council allotted to the Faculty of Medicine would have been taken by these Colleges. The schools and Royal Colleges would thus have secured fourteen seats on a Council of thirty, whilst the Teaching Colleges would only consent to the Royal Colleges having the six seats mentioned in their Draft Charter, and allow to the schools either four or five seats to be divided among them. The outcome of the conferences was sent to the Lords of the Privy Council at the end of last week. On Monday, July 13th, Lord SELBORNE delivered the judgment of their lordships. Lord CRANBROOK, President of the Council, Lord SELBORNE, Lord MONK BRETTON, Lord BASING, and Lord SANDFORD, the members of the Committee, were all present. The judgment was practically, in every essential point, except as regards the question of name, in favour of the petition of King's and University Colleges. A minimum period of two years' study in the colleges of the new university is to be insisted on, so that the new university should not compete with the existing institution for the examination of non-collegiate students. The words "of London" or "London" must be omitted from the proposed Draft Charter, and some other name, such as "Albert," or "Albert Metropolitan," must be taken. The further proposal of the University of London, that the powers to confer degrees should be limited to Arts and Science, was disallowed. Passing on to the opposition of the Royal Colleges and of the Medical Schools, his lordship said that the claims of the Royal Colleges to have the control of the medical faculty in the new University were inadmissible, and that ten direct representatives from the schools on the Council, in the event of the Royal Colleges being represented as proposed, were too many. The representatives of the medical corporations and of the medical schools should be six for the former and five for the latter (by alternate selection from the ten schools), and this would necessitate a larger Council (say, of forty members), of whom four might be representatives of the faculty of law. If the Royal Colleges decline the six seats offered to them, these six seats and four additional ones are to be given to the schools should they accept the proposal, and this arrangement would permit of a representative from each school, and a total Council of 39. By these alternatives the Council would be thus formed: Crown nominees, 6; King's and University Colleges, 6; Royal Colleges, 6, and medical schools, 5 [or medical schools without Royal Colleges, 10]; Faculty of Arts, 4; of science, 4; of laws, 4; and of medicine, 4; which, with the Chancellor, would make a Council either of 40 or 39 members, 15 or 14 being direct representatives of medicine. If the colleges and schools both decline to take the seats on these terms, the six places on the Council which it is now proposed to give to the Royal Colleges are to be filled up in accordance with the 29th paragraph of the report of the Royal Commissioners, which states that "the place thereby vacant might be supplied (in the meantime) by the Crown, by nomination of some fit person, a member by preference of the college or body whose president, principal, or chairman (as the case may be) is for the time unwilling to accept as aforesaid." Although the Council would be thus completed, provision for subsequent admission of the colleges and schools is to be made should they now decline, but afterwards desire to join. The medical schools are to be Colleges of Medicine in the new university, and their science teachers are to be admitted as members of the Faculty of Science. No honorary degrees in medicine are to be established, and the clause requiring that a qualification entitling to registration under the Medical Acts must be obtained before a degree in medicine can be conferred on a candidate by the new university is to stand in the Charter. Power is given to the university to assign a place or places upon the Council to the Society of Apothecaries, but their lordships are not disposed at the present time to insist upon that being done. The area which is to be included in the new university is that of the County of London. Finally, a Draft Charter embodying these recommendations is to be placed before their lordships at an early date, and we understand that the petitioning colleges are now engaged in drafting its clauses.

The decision of the Lords of the Privy Council is in complete accord with the views which we have consistently and persistently urged since the formation of the Association for promoting a Teaching University for London in May, 1884. We saw that it was only by that movement being carried to a successful issue that the London medical grievance, which was so ably pointed out by the late Dr. MOXON, the late Dr. WILSON FOX, Mr. MACNAMARA, and others, could be remedied. We predicted that the constitution of the Royal Colleges and the traditions of the University of London were such as to render it impossible for these bodies, either singly or conjointly, to carry out the necessary measures for placing London medical students on a similar platform to their Scotch and provincial brethren, and the result has now shown

that our predictions were well founded. In the first place, the Royal Commissioners were satisfied that the demand for medical degrees attainable in London more easily than at present was a just one, and that the proposal that a Senate of the Royal Colleges should be formed, with power to confer degrees, could not be entertained. From April, 1889, to May, 1891, the University of London was occupied in conferences with the various bodies interested in the question, and at the recent meeting presented their latest revised scheme to Convocation. This scheme, instead of aiming at the establishment of a Teaching University in and for London, as recommended by the Royal Commissioners, would have practically put all the University teaching in Arts and Science in the English and Welsh University Colleges, as well as in the colonies, under the centralised control of Burlington-gardens. As a remedy for the grievance of the London medical student it practically handed over its pass M.B. degree to the Royal Colleges, retaining its honours M.B. degree and its M.D. degree at the same standard as before. Any unprejudiced observer could foresee that Convocation would not adopt such a scheme, and it was rejected by a substantial and decisive majority. Since then events have moved quickly, and on Monday last, after a hearing of three days' duration, the Lords of the Privy Council delivered their judgment, which will be found *in extenso* on page 143. We must here express our deep regret that Professor JOHN MARSHALL, who for so many years presided over the Association for the organisation of teaching in London, did not live to see the outcome of his labours, and the success of the views which he urged before the Royal Commission.

The power to grant degrees in medicine having been given to King's and University Colleges, the other London medical schools must necessarily take their part in the scheme. There can be no doubt that the Royal Colleges are placed in a most difficult position. They have always insisted on a practical control in any rearrangement of the curricula and examinations of the London medical student. The terms of their own scheme, the refusal to join in the earlier schemes of the University of London, and their case before the Privy Council, all show this. In the new scheme only six direct representatives are allotted to them on a Council of forty. This is sufficient to give the new university the benefit of their experience and knowledge; but they can obviously have no practical control. It was stated by Sir ARTHUR WATSON, Q.C., that they would decline to accept the position offered to them; but, looking at the probable course of future medical education in London, we doubt very much if a reconsideration of the question would not be a wiser policy. If the medical schools accept the ten seats on the Council of the new university, it will then be too late for the Royal Colleges to alter their views.

THE preliminary report upon the recent census in England and Wales has just been issued. The general result of the census, according to this report, was the enumeration of 29,001,018 persons on the 6th of April last, showing an increase of rather more than three millions of persons upon the number enumerated at the previous census in 1881. This increase was actually smaller by nearly a quarter of a million than the increase in the preceding intercensal period; and the rate of increase in the ten years 1881–91 did not exceed 11·65 per cent., against 14·36 per cent. in the ten years 1871–81. This rate of increase was smaller than the rate recorded in any intercensal period since the first national Census in 1801. It is worth noting that the rate of increase declined steadily from 18·06 in 1811–21 to 11·93 in 1851–61, and, after an increase again to 14·36 in 1871–81, declined again to 11·65 in the intercensal period just ended.

The Census Report points out that the population of England and Wales at the recent census was 703,350 less than it would have been if the rate of increase that prevailed during the period 1871–81 had been maintained during the more recent period 1881–91. This over-estimate of nearly three-quarters of a million seems undoubtedly large, but represents an error of only 2·4 per cent. upon the true number; and it may be well to point out that the maximum effect of this over-estimate upon the calculated death-rate of England and Wales in 1890 was to under-state that rate as 19·2, whereas the true rate was 19·6 per 1000. Dr. LONGSTAFF points out that he was able, from the excess of births over deaths and by judicious manipulation of the emigration and immigration returns, to estimate the population of the several parts of the United Kingdom at the date of the recent census with a fortuitous approach to the actual number. In face, moreover, of the obvious imperfections of our immigration returns and the absence of all knowledge of the amount of migration between the several parts of the United Kingdom, it is hardly probable that the success of Dr. LONGSTAFF'S method could be assured in another intercensal period. The method, moreover, would afford no assistance in estimating the population of subdivisions of England and Wales, or of large towns, and therefore cannot be regarded as in any way obviating the necessity for more frequent taking of the census in the interest of sanitary progress. The Census Report shows that the reduction in the rate of increase was partly due to a decline in the natural increase, through the marked reduction in the birth-rate, but was mainly the result of the great increase in the amount of emigration.

The decline in the rate of increase of population during the last intercensal period was most conspicuous in the returns from the large towns, and especially in the very largest of these towns—that is, among the six towns having a population exceeding 250,000. It is now shown, however, that among 352 English and Welsh towns with a population ranging from 10,000 to 250,000 the rate of increase averaged more than 20 per cent., while in 453 towns with a population ranging from 3000 to 10,000 the increase only averaged 9·6 per cent., and in 175 urban sanitary districts with a population under 3000 the increase averaged only 2·6 per cent. One of the most important and interesting problems which the present Census Report should enable us to solve is whether, beyond the decline in the rate of increase in our large towns, there is any evidence of decline in the rate of migration from rural to urban districts. Unfortunately, however, this is a problem the solution of which is beset with difficulty. The report just issued points out that the terms "urban" and "rural"

are very generally used without any definite meaning, but for statistical purposes some strict definition of the terms becomes necessary. At the date of the recent census nearly twenty-one millions of persons were living in London and in 1005 urban sanitary districts in England and Wales; the rate of increase in this aggregate urban population during the recent intercensal period was 15·3 per cent., while in the remaining or rural area, with a population of rather more than eight millions, the increase during the ten years did not exceed 3·4 per cent. New urban aggregations are continually being formed in rural districts, and are from time to time officially recognised as urban sanitary districts, and existing urban sanitary districts are constantly being enlarged at the expense of the rural districts. These changes of areas interpose great difficulties in the way of calculating the rate of increase or decrease of population in rural districts. It may be useful, however, to note the rates of increase or decrease in some of the more rural counties, the boundaries of which, of course, remain unchanged. There were at the census in 1881 fourteen English and Welsh counties that showed an actual decline of population in the ten preceding years, and the number of English and Welsh counties showing a decline between 1881 and 1891 was again fourteen. In 1881 only six of the twelve Welsh counties showed a decline, while in 1891 nine showed a decline. On the other hand, while eight of the English counties showed a decline in 1881, only five showed a decline in 1891. It is true that among the English agricultural counties the rate of decrease of population showed an increase during the recent decennium in Shropshire, Herefordshire, and Rutlandshire, and the rate of increase showed a marked decline in Lincolnshire and in Gloucestershire. On the other hand, however, Dorsetshire, Westmorland, and Cambridgeshire, which declined between 1871 and 1881, showed an increase in the ten years 1881–91, and the rate of decrease had considerably declined in Cornwall and Huntingdonshire. The rate of increase, moreover, in Hampshire, Hertfordshire, Suffolk, Norfolk, Bedfordshire, Somersetshire, Oxfordshire, Wiltshire, Devonshire, and Buckinghamshire was much larger in 1881-91 than it was in the preceding ten years. It may therefore be confidently asserted that the results of the recent census afford evidence not only of the arrest of the growth of large towns, but also of a decline in what has been called the depopulation of our rural districts. This is a subject, however, which, both on the ground of its importance and of the statistical difficulties that surround it, requires more careful examination than has yet been possible since the issue of the Preliminary Census Report. We propose, therefore, further to consider this subject on a future occasion.

THE report of the Committee of the House of Commons appointed to consider the London Water Bills has now been presented, and the results of the inquiry of the present session can be appreciated. It will be recollected that interest mainly centred in two Bills, the London Water Commission Bill promoted by the Corporation of the City, and the Metropolis Water-supply Bill promoted by a few of the vestries. The former proposed the appointment of a Commission, consisting of members nominated by two Government departments, by the London County Council and the Corporation of the City, and by the County Councils and Corporations in the watershed of the Thames and Lea. This Commission was to purchase the existing undertakings and act as the water authority The latter Bill proposed the constitution of a trust representing the consumers and inhabitants of the metropolis and adjoining districts, to purchase the existing undertakings, but the London County Council was to have the option of taking over the undertakings and becoming the water authority, if it chose to do so.

Both Bills were opposed by the sanitary authorities of the Thames basin, while the London County Council, the Corporation of the City, and the water companies engaged in a triangular duel, until the Corporation's Bill having been thrown out the Council and the Corporation combined their forces to dispose of the Vestries' Bill. The proposal was then made by the Council and the Corporation that a statutory committee of the Council should be constituted a water authority, on which the Corporation was to be largely represented, and efforts were made to revive one or other of the Bills, with a view to enabling it to carry out this object. The result was unsuccessful, and the Committee has only been able to report as to the course which should be adopted in future. The recommendations of the Committee are, briefly, that the London County Council should be empowered to inquire into the whole question, and if it so resolve it should be empowered to bring in a Bill or Bills to constitute itself a responsible water authority, acting through a statutory committee appointed wholly among its own members, or partly in conjunction with the Corporation and also a certain number of experts. This authority is to be required to purchase, either alone or in conjunction with such of the authorities of the outside areas as may be arranged, the undertakings of the eight water companies by agreement, or, failing agreement, by arbitration within a fixed period, and to negotiate with the authorities of the outside areas for the purchase by the latter of the works of distribution in their districts, and of the right to a supply of water in bulk from the new authority. An important recommendation is also embodied in the report in regard to the purchase of fresh sources of supply. The Committee propose that Parliament should not hurriedly allow further encroachment upon fresh areas of supply until the possible requirements of the metropolis and of other large populations have been considered.

It cannot be expected that legislation can this session follow upon the report, but the Government will doubtless give opportunity for this to be done in the next session, and, in the meantime, the several authorities will be better prepared for the inquiry which will ensue upon the County Council being given the powers necessary for the purpose. Among the most important points of investigation are those which the Committee of the House of Commons was unable to consider, the quantity and quality of the water derived from the Thames basin. The attitude of the water companies to such an investigation will be watched with interest; it is possible they may desire to take no part in it, but the companies are in possession of information which

ought to be available for the purposes of the Council, and it may be hoped that nothing will prevent the representatives of London having before them all the facts which are necessary for the purposes of a decision of such vital interest to the community.

THE treatment of tubercular diseases brought under the notice of the Paris Academy by M. LANNELONGUE, an abstract of which we published last week, is essentially based on the simple fact that fibrous induration is to be regarded as the natural curative process of tubercular change. It having been found that chloride of zinc is peculiarly apt to excite such sclerotic processes, when administered in sufficiently small quantity (two or three drops of a 10 per cent. solution) so as to obviate its more powerful escharotic action, this substance has been employed, and has yielded very satisfactory results in external tuberculosis, and its application in the case of pulmonary tubercle is, according to M. LANNELONGUE, equally encouraging. As an illustration of the changes effected by injections of this salt into tubercular tissues may be cited the case of a child suffering from caseous glands, many of which had become fused into one mass. These were treated by the injections, and after a few days, suppuration commencing, the glands were extirpated. Opportunity was thus afforded for comparing histologically those glands which had been injected and those which had been left alone. In each case there was caseous material surrounded by a zone of tubercular tissue within a fibrous sheath; but in the former glands the whole substance was dense and fibrous, and very firmly adherent to the investing layer. It would appear that the tubercular formation itself is less influenced by the agent (which has no specific property, and is therefore not in the least comparable to Professor KOCH'S tuberculin) than are the healthy tissues that surround the tubercles. The aim of M. LANNELONGUE'S method is, then, to induce the formation of a densely fibrous investment to active tubercle, and by this process of encapsulation to limit the diseased product, and as it were to imprison the bacilli.

That chloride of zinc does possess the property claimed for it, is sufficiently proved by the experimental study conducted by M. LANNELONGUE, in conjunction with M. ACHARD; but the adoption of his treatment will depend upon the confirmation of his results at the hands of others. We confess that, whilst recognising its possible utility in tubercular joint disease and glandular affection—in some cases as a curative agent, in others as a useful adjunct to further surgical proceedings,—we must speak with the greatest reserve upon its application to internal tuberculosis, and especially to cases of pulmonary phthisis. M. LANNELONGUE[1] gives notes of two cases of commencing pulmonary tuberculosis, both in children, in which a single injection of two drops of a 1 in 40 solution was made into the apex of the affected lung (through the second intercostal space). In each case râles previously present disappeared after the injection, and in one case the temperature remained normal, in the other it rose slightly on the fourth and fifth days; but these cases are by no means conclusive, and it is impossible to base any definite opinion upon them. Indeed, on the whole subject of the curative effect of the method M. LANNELONGUE speaks with commendable reserve; and although M. LE FORT claims a priority in the treatment of articular tubercle on the same lines — having in 1879 employed injection of sulphate of zinc for this purpose, with results which at first were encouraging, though later there was recurrence of the disease,—there are differences in the methods employed in the two instances; and it may well be that the new procedure may be found to be of more considerable utility. It has one great merit, that of simplicity, and it deals with a substance the composition of which is no mystery.

[1] Bull. Acad. Méd., July 7th, Obs. xvii. and xviii.

AMONGST the points that are being dealt with in certain of the more recent annual and special reports issued by medical officers of health is that of the influence of subsoil water in the production of disease. For a number of years we were somewhat behindhand in this country in studying this question, whereas a number of observers in Germany, Austria-Hungary, and elsewhere, and notably Professor FODOR in the latter country, were making extensive observations on the subject. PETTENKOFER had long ago discussed the question in relation to cholera and enteric fever, and he had especially connected the latter disease with a falling level in the subsoil water. Observers in this country had, on the other hand, noted certain occurrences of the same disease in connexion with a rise in the subsoil water, especially when a falling barometer assisted in drawing out of a contaminated soil the air which the rising water was propelling into the atmosphere. Years ago Mr. W. H. POWER suggested that our specific autumnal diarrhœa might be due to somewhat similar influences, and Dr. BALLARD'S more recent report supports this contention. His observations, based largely on experiments carried out by medical officers of health and other sanitary officials, have gone to show that habitual moisture of soil, not sufficient to exclude air, but such as is brought about by a high-level of subsoil water, such as serves to maintain surface wetness by capillary attraction, is precisely the condition in a contaminated soil which, at a certain temperature, promotes the vitality and multiplication of the organism with which epidemic diarrhœa is allied.

Diphtheria is also held to be associated with a somewhat similar condition, and amongst those who have particularly studied the question in connexion with this disease the labours of Mr. MATTHEW ADAMS of Maidstone deserve prominent mention. Last year he issued a special report on the subject, and this year he tells us that another period of observation has served to confirm his views. These views are essentially to the effect that the diphtheria organism, whilst probably it is "drowned" if immersed in water, develops most abundantly in that amount of soil moisture which is found just above the level of subsoil water, and that its expulsion into the outer air, and the consequent diffusion of the infection, is often brought about by reason of a rise in the water level, the soil in which these results take place being one which must also be sufficiently contaminated by soakage of filth to

form a suitable breeding ground for the development and subsequent changes occurring in the pathogenic organism.

It would therefore appear that changes in the level of subsoil water, especially when causing the expulsion of subsoil air into the atmosphere, may have a distinctly adverse influence on health. We have long known in England that a high level of subsoil water tended to the diffusion of tubercular phthisis, and to avoid the dampness of dwellings induced by it the concreting of the whole area of the site of buildings has been advocated. But it now seems that, in addition, we ought to carry out this requirement in order to protect our homes against subsoil air, which may be forcibly expelled into them by the rising level of the water in the soil, and we further learn that the influence of subsoil water upon health is one which varies largely according to meteorological conditions and to the state of the soil in which it oscillates. There is, indeed, abundant evidence to show that the subject is one that will well repay further careful study.

Annotations.

"Ne quid nimis."

THE HOUSE OF LORDS AND THE FACTORY BILL.

THE House of Lords has failed to improve the Factories and Workshops Bill, but it has in any case made a laudable effort to strengthen that weak measure. Almost every amendment introduced would have greatly increased the value of the Bill, but without any exception all the useful amendments were withdrawn or thrown out. The Earl of Dunraven was first and last in the fray. He justly pointed out that local authorities were often supine, failed to do their duty, and that the Home Secretary, not being omniscient, would never be well enough informed to keep them up to the point of strictly applying the law. Practically, though the Earl of Dunraven did not pay us the compliment of alluding to the fact, the Bill, when it becomes law, will depend for its application principally on the energy, courage, and independence of the representatives of the press. The great organs of publicity will have to draw the attention of the Secretary of State to the local bodies that fail to carry out the law. The appointment of the Sweating Commission was the result of the outcry in the press which was initiated by THE LANCET. The present Factory Bill is the result of the Sweating Commission Inquiry; and, for the successful carrying out of this proposed law, the matter is thrown back again on to the shoulders of the press. The law will be there, but it will certainly remain a dead letter unless the press unceasingly find out and denounce cases where it is not applied. On Clause 5 the Earl of Dunraven very justly sought to specify what should be the minimum space allowed in a factory or workshop, and suggested 250 cubic feet by day and 400 cubic feet by gas-light. This is little enough even under the best methods of ventilation; and we do not see that because this amount of space might be granted in a badly ventilated factory, therefore no attempts would be made to improve the bad ventilation. Nevertheless the proposal was rejected. Nor would the Lords sanction the laying down more clearly of the conditions under which cellars might be occupied as workshops. Because it would be difficult to achieve sweeping sanitary reforms in a sawpit, therefore defective cellars and basements were to be left undisturbed. Such, at least, seemed to be the principal argument which resulted in the rejection of the motion. The Earl of Aberdeen's proposal to appoint female inspectors had also to be withdrawn. At the same time the House of Lords, by its vote, allowed women to continue working with the "Oliver," and sanctioned the blacksmith's heavy work by which the women of the Cradley-heath district are degraded and a high infant mortality produced. The necessity—which to prevent contamination is, from a health point of view, imperative—of keeping a record of all work sent to be done outside a factory or a workshop was the subject of yet another amendment rejected by the Lords. Finally, the Lords debated at some length the vexed question of treating laundries as factories or workshops. With the aid of the Women's Trade Union League a canvass has been held, with the result that 65,939 laundry women claimed the protection of the law, 439 were opposed to it, and 1128 remained neutral. Lord Salisbury—who, on such matters, does not like to legislate unless the persons affected really desire such legislation—could scarcely have a better basis of opinion to work upon than this *plébiscite*. Nevertheless, he thought that the position of the laundry women ought to be made the matter of a long and special inquiry, and that then a special Bill might be introduced for them and them alone. Lord Salisbury seems to believe that public opinion is not ripe on the subject, and wanted special inquiries to be made. If that be the case, there will be no difficulty in ripening the one and supplying the other.

DEATH CERTIFICATES.

A CORRESPONDENT writes to us that, having given a certificate of death in which he had filled in, according to its form, the name and age of the deceased, he is now credibly informed that these particulars were inaccurately given, the fact being that his patient, who was the wife of one man A, was passing at the time of her death as the wife of another B, to whom her real age was unknown. He inquires as to the steps which it would, in these circumstances, be proper for him to take with a view of correcting the error, but we think that the case is not one in which he should move at all. The duty of a medical man in respect of the certification of death is to provide the relatives with a certificate of the *cause* of death. The name and age of the deceased are entered presumably for the purpose of identification only, and the medical practitioner undertakes no responsibility for their correctness. These particulars are to be furnished to the registrar upon the authority of the relatives, and they can only be entered in the medical certificate of death upon information furnished to the medical attendant. It would obviously be improper for him to enter there anything that was to his knowledge false—as, for example, to state the age of an adult person as seven years, or to give a name which he knew to be an *alias* used for the purpose of concealment. But if he in good faith fills in the certificate in such a way as to identify the patient, and gives the *cause of death* correctly, his duty is at an end. It would be a very burdensome and a very dangerous task for him to undertake the subsequent correction of the certificate in these collateral particulars. In the first place, anything that subsequently comes to his knowledge must almost of necessity be in the nature of a communication by some person who has better sources of information than the medical man. If any deception has been practised upon the Registrar-General, and there is a duty to expose it, that duty must rest with the person who has at command the original facts, not on one who can only take them at second hand, and must vouch another person as his authority. Then the risk of acting upon such information might

be very serious. Statements of the kind to which our correspondent refers reflect not only on the deceased, but also upon survivors, and the publication of such suggestions might easily render him amenable to the law as a libeller or a publisher of slanders. We think, therefore, that our correspondent will best consult his own interests by disclaiming any responsibility for the accuracy, as distinct from the regularity, of the entries made in his certificate concerning the name and age of the deceased, and that even public spirit would suggest no more than that he should refer the informant who has given him his latest facts to the registrar of the district. It may be that the Registration Office will be able to clear the matter up, and to apply any necessary correction to the incriminated entry. What is perfectly clear is that the medical man can neither make the correction himself nor furnish evidence upon which anybody else can proceed to make it.

CHLOROFORM IN THE CASE OF THE LATE MR. W. H. GLADSTONE.

THE daily papers, commenting upon the death of Mr. W. H. Gladstone, contain the statement that "the patient never regained consciousness, and died, his heart being too weak to stand the effects of the chloroform." Upon inquiry into the matter we find this statement to be absolutely misleading. The facts of the case were given by us in our last week's issue, so we need only add, as regards the chloroform, that it was administered with perfect success on the Thursday, and that Mr. Gladstone came out of its effects quite satisfactorily during that day, that he was conscious both on the Thursday and Friday, July 2nd and July 3rd, and that his death on July 4th was from causes quite remote from any connected even indirectly with the anæsthetic employed. Chloroform in combination with morphine was used to lessen vascular congestion, a desideratum in surgical procedure upon the brain. The mischievous effects of rumours such as the one we have now contradicted are considerable. Persons become unduly alarmed, and are thus placed in the most disadvantageous condition for taking an anæsthetic. The perils of anæsthetics are real enough; but it must be remembered that fatalities are very few indeed when compared with the enormous number of times that nitrous oxide, ether, and chloroform are daily administered. It is matter of regret that persons unfamiliar with anæsthetics and their action should jump to the conclusion, as is often done, that every death occurring at the time of or immediately after a surgical operation is necessarily the immediate result of the anæsthetic.

NEW TRAMCAR STARTER.

OUR attention has been drawn to an invention which, if it really justifies what is said of its performance, deserves to be introduced into general use. This is a tramcar starter, which, as its name indicates, can be used to facilitate the restarting of a tramcar that has been brought to rest. The operation of starting a heavy vehicle is, as everybody knows, one of great difficulty, involving severe strain upon the horses which draw it. This is especially the case with tramcars, which run upon so smooth a road that the labour of maintaining speed once attained is minimised and the efficiency of a horse proportionably increased. This facility of draught does not, however, imply corresponding facility, or, indeed, any facility whatever in starting. The dead weight to be got into motion is the same, whether the friction attending the motion be much or little. It is this dead weight—the inertia of the body—which makes the start so troublesome, and the improved facility of travel has the effect of enabling a heavier burden to be placed behind the horses, and so of increasing, instead of diminishing, the initial effort. The principle of the new appliance is explained to be that a spring is so applied to the wheels as to take up the energy absorbed in bringing the car to rest and give it out again when the start is made. Theoretically such a device is perfectly feasible, and we hope that in the end it will be shown that its inventor has succeeded in surmounting the practical difficulties, and has designed an instrument which will do much to alleviate the hardships of a draught horse's lot.

BORAX IN EPILEPSY.

DR. DIJOUD has tried this remedy in twenty-five cases, and he claims to have entirely cured one, and to have relieved all except six. The duration of the treatment varied from one to seven months, and he was able without inconvenience to carry the dose up to ninety grains a day. This was only possible if a beginning were made with small doses, which were gradually increased; and when the dose exceeded sixty grains daily he found it advisable to add some glycerine to the water and syrup in which the drug was usually administered. It should also be mentioned that the patients to whom Dr. Dijoud administered borax had been treated unsuccessfully with the bromides, and there seems now to be little doubt that in certain cases of epilepsy borax is of very considerable use. It is desirable that particulars should be furnished of the time that elapsed between the cessation of the treatment by bromides and the inauguration of that by borax, as it is well known that epileptics who have been treated with bromides often improve much in their condition after the drug has been left off; and it is necessary to distinguish this improvement, which at least occasionally occurs, from that which may be due to the administration of a fresh remedy.

TUBERCULOSIS OF THE LACRYMAL SAC.

TUBERCULOSIS of the lacrymal sac is an extremely rare affection. A case is recorded by Dr. Emil Bock in the *Wiener Medicinische Wochenschrift*, No. 18, 1891. It occurred in a woman aged twenty-seven, who for about two years had been gradually losing strength and flesh, and at the same time suffered from tubercular disease of the left elbow-joint, which gradually swelled; an abscess formed and burst spontaneously, leaving a stiff joint, with the forearm bent at right angles to the arm. There were numerous fistulæ, which continued to discharge. Shortly after the abscess burst a small swelling appeared in the neighbourhood of the right lacrymal sac. It gradually increased in size until it was as large as a hazel nut. The skin over it was normal in appearance, but was adherent to the swelling. The tumour itself was immovable and felt rather doughy to the touch. A sound could not be passed into the duct. There was nothing abnormal in the globe of the eye. With the exception of enlarged glands in the right axilla and the diseased elbow-joint there were no manifestations of disease anywhere else in the body. An operation was proposed, to which the patient assented. The skin over the swelling was therefore incised, and a brownish-red tumour found beneath it. It was quite easy to separate the adhesions which had formed around it, and by means of a sharp spoon the whole contents of the sac, in which it lay, were removed. The wound healed in six days. The tumour on closer examination was found to have a diameter of about 10 to 11 mm., with a smooth outer surface due to a collection of fat. When this was removed it was then seen to be ragged and uneven. Microscopical sections exhibited collections of small round cells surrounded by thin strands of connective tissue. In the larger of these groups the centre was often caseous. In some of the sections, in addition to the round cells, epitheloid cells were found. Giant

cells were also numerous, especially round the periphery of the nodules. The tubercular nature of the growth was proved by the discovery of tubercle bacilli. In his remarks on the case Dr. Bock refers to the experiments of Valude, who had inoculated pure cultures of tubercle bacilli into the lacrymal sacs of ten rabbits; the result was always negative. In only three cases did nodules appear in the vicinity of the sac. Valude came to the conclusion that the natural contents of the lacrymal sac killed the tubercle bacilli, so that infection was impossible. Dr. Bock, however, is of opinion that more stress must be laid upon the rapidity and force with which the tears are carried away by means of the continuous contractions of the orbicularis muscle. The bacilli naturally go with the stream, and are unable to find a suitable pabulum for their growth. In the case recorded above, the patient had probably carried some of the pus into her eye from the diseased right elbow-joint. As far as the case could be followed there had been no relapse; and although, to judge by the sound, the lacrymal sac was entirely absent, no epiphora had resulted.

DANGERS TO EPILEPTICS.

DR. HARCOURT ANDERSON has written a letter to the *New York Medical Record* pointing out the grave risks that an epileptic patient runs if allowed to go about unattended. From a consideration of the danger incurred by such patients, either through a paroxysm coming on while they are in some dangerous position, or through the ignorant officiousness of policemen or others, he suggests that medical men should insist on an epileptic patient being attended by someone while they are in public places, and that the police should be instructed what to do for a patient in a fit. The suggestions are no doubt good, and the last is feasible. The first, however, is, we fear, impracticable. Epileptics, as a rule, cannot afford the luxury of an attendant, and from necessity they are compelled to get about their work as best they can. The risks they run are evident, but it is not easy to see how they are to be obviated.

RAILWAY BRIDGES.

IT is not reassuring to learn that, in the opinion of Sir John Fowler, some eighty bridges on the Brighton railway stand in need of reconstruction; and, further, that the necessity arises, not from circumstances peculiar to this line, but to such general conditions as the increased weight of modern locomotives and the increased speed of modern travelling, so that the Brighton railway bridges may be taken to be fair specimens of the railway bridges throughout the kingdom. We hope that the fault which the engineers find with these and other bridges is not of a character to involve any serious danger of another such collapse as recently occurred at Norwood, and we shall be glad to know that the work of reconstruction which is admitted to be necessary has been put in hand, and is being carried out with all possible despatch.

THE FORM OF DYSENTERY PRODUCED BY THE AMŒBA COLI.

DR. W. T. COUNCILMAN, in the *Journal* of the American Medical Association, contributes a paper on the symptoms which are produced by the presence of the amœba coli in the intestines. Clinically, the disease is chronic; it begins with diarrhœa, and is intermittent in character, lasting for a month or so, then ceasing, and finally breaking out again. There is no pain in the earlier stages, but this symptom appears later. The diarrhœa gradually becomes worse, and there is much tenesmus. The stools are mixed with blood. There is usually no fever in the entire course of the disease, but progressive wasting is a prominent symptom. The duration may be from three to six months. Towards the last the complexion assumes a dull, earthy-like colour. There is nothing distinctive in the stools; they are always fluid and considerable in amount. When these patients die, the anatomical lesions are characteristic. There is entire absence of diphtheritic exudation; the surface of the bowel shows numerous ulcerations. These ulcers are small in size, and their surface is mammillated; there is loss of substance at the apex of these elevations, the depression being filled with an opaque, greyish, gelatinous mass. The entire intestine is much thickened, especially the muscular coat. Large ulcers are sometimes found running into each other, so that long sinuous passages are formed, running through the intestines in various directions. The ulceration extends to the muscular coat, large sloughs being sometimes cast off. The most frequent complication is abscess of the liver. The abscesses are multiple and are filled with a gelatinous-looking mass. The next most common complication is abscess of the lung, this formation being derived from an extension of the liver abscess through the diaphragm. It is very insidious in its onset; there are always pyrexia, much sweating, and abdominal pain. The sputum is characteristic, being tough, of dingy cherry-red colour, and very tenacious. The cause of this disease has long been suspected. Davaine, in 1853, described the cercomonas in the stools; Lander, in Prague, found small amœbæ in the stools of a child which had died of dysentery. Larsch of St. Petersburg was the first to describe the parasite. It is an amœba $\frac{1}{1000}$ to $\frac{1}{150}$ of an inch in length. It is either round or undergoing rapid movements. The outer part is a homogeneous mass, and the inner part is filled with granular matter. The movements are active, and its large size makes it easy to study under a low power of the microscope. It may be seen to change its form and shape. It puts out its pseudopodia and draws them in again. It is found in the stools and in the abscesses of liver and lung. Dr. Councilman thought this form of disease was not so uncommon as it was generally considered. He had not yet succeeded in finding the geographical range of the disease.

THE CONVERSAZIONE AT THE COLLEGE OF SURGEONS.

WE would remind those of our readers who are Fellows or Members of the Royal College of Surgeons, and wish to attend the conversazione of the College which will be given to the members of the International Congress of Hygiene and Demography, that they can obtain tickets by application to the secretary on or before the 30th inst. The conversazione will be held in the College buildings on Aug. 10th, from 9 P.M. to 12.

THE DISEASE KNOWN AS "SURRA" AFFECTING HORSES AND MULES IN INDIA.

THERE is a disease of a very fatal kind affecting horses and mules in India known as "surra," which has recently been made the subject of investigation by Surgeon-Major George Ranking, M.D., who is serving with the 5th Bengal Cavalry, and who has published a preliminary note on its nature and pathology in the *Indian Medical Gazette*. The symptoms are those of a progressive anæmia attended with emaciation, conjunctival petechiæ, and abundant flow of albuminous urine. The disease is characterised by a fever of remittent or intermittent type, the temperature ranging from as high as 104° to as low as 98°F. Dr. Ranking is of opinion that "surra" is of malarial origin, corresponding to ague in man, and requiring a similar treatment. Examination of the blood of the affected animals showed that the blood-cells are affected with a micro-parasite adherent to its surface or embedded in its substance, by which the

normal contour of the blood disc comes to resemble an echinus, hence called the "echinoid stage." Later on the cells lose this appearance, and become occupied by bodies compared to the *plasmodium malariæ*, which break up, undergoing rapid fission into spores, and escape into the plasma, transforming the blood-cell into a translucent and all but invisible body. The micro-organism is capable of cultivation. Dr. Ranking's researches have led him to form an opinion as to the identity of the plasmodium malariæ and the bacillus malariæ, notwithstanding that this view is open to criticism. The facts observed from the cultivation and inoculation of the organism apply in their entirety, he thinks, to ague, and two cases of "surra" in animals are rapidly recovering under treatment based on this assumption.

THE PHYSIOLOGICAL PROPERTIES OF MALE FERN.

THE physiological properties of the ethereal extract of male fern have recently been investigated by MM. Prevost and Binet of the University of Geneva, who find that grave results seldom follow even large doses introduced into the stomach of man and warm-blooded animals, in consequence of the slowness with which the drug is absorbed, but that hypodermic, and still more intra-peritoneal injections, kill animals by paralysing the heart and respiration. The most prominent symptoms are paralysis and early rigidity of the voluntary and involuntary muscles, preceded by vomiting, dyspnœa, shivering, and cold. The chief cause of death is paralysis of the heart, which is found immediately afterwards firmly contracted in systole, and incapable of responding to stimuli. The vagus does not lose its inhibitory power until just before death. A great loss of vermiform movements is observed in the intestine in the case of the rabbit, the rat, the guinea-pig, and the pigeon. When the drug is applied to the conjunctiva the sensibility of the cornea is diminished, and subsequently arrested without any change being observed in the pupil. In cold-blooded animals the central nervous system is quickly paralysed. There would seem to be a special action on the protoplasm which causes the muscular and other changes observed.

THE JUBILEE OF THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

THIS being the fiftieth year of the existence of the Edinburgh Medical Missionary Society, jubilee services or meetings have just been held under the presidency of Professor Simpson and Sir William Muir. The superintendent, the Rev. J. Lowe, F.R.C.S. Edin., in reviewing the work of the Society, dwelt on the great advance that had been made of late years. Thus between 1851 and 1871 nineteen students were educated and trained by the Society for all the various missionary societies in England, Scotland, Ireland, and the Continent. Since 1878 sixty-eight students had been educated and trained, and gone forth from their institution. In 1871 only seven students were preparing for this work. This year there were twenty-nine students in course of preparation. In 1871 the total income was only £1314; last year it was £7349. In 1861 there were only 19 medical missionaries so far as they could find out in all the foreign mission field, now there were upwards of 300. In 1861 there were no lady medical missionaries; now there were at any rate 35 fully-equipped lady medical missionaries in the foreign mission field. He also mentioned that the directors of the Society proposed to enlarge their premises in the Cowgate, the accommodation there having been found to be inadequate for the work. Addresses were also given by Mr. A. Neve of Kashmir, Mr. Christie of Manchuria, Dr. Edwards of Central China, Dr. H. Martyn Clark of the Punjab—himself a pure Afghan and a graduate of Edinburgh,—Mr. Duncan Main of Hangchow, Dr. G. P. Smith of North China, and Dr. Scholes, a negro medical missionary whose sphere of work is in the Congo.

ELECTRIC LIGHTING.

A CORRESPONDENT draws our attention to a statement which has been publicly made that the adoption of electric lighting in place of gas at the office of the Savings Bank Department of the General Post Office has been followed by a marked reduction in the amount of sick leave. We have good authority for believing that the statement in question is substantially correct, and although the time which has as yet elapsed—two years—since the introduction of the new illuminant has manifestly been insufficient for the collection of reliable statistics, there is, we think, every reason to believe that electric lighting will prove to be much more wholesome than ordinary gas flames. An electric lamp does not compete for the oxygen of the apartment in which it is placed, and this circumstance gives it a marked advantage over any open flame. It cannot, like some forms of gas burner, be used to promote ventilation; but in ordinary situations its harmlessness is a much more important property.

THE PROGRESS OF CHOLERA.

CHOLERA is still spreading in Abyssinia, the disease making great progress at Massowah, where not only natives but some Europeans have been attacked. The heat is stated to be excessive. It is also alleged that some cases have occurred amongst pilgrims at Mecca, and that detention at Red Sea ports is already being arranged for pilgrims before returning to Egypt or passing up the Suez Canal. The occurrence of the disease at Aleppo has led to quarantine being imposed by the Austrian Government on all arrivals from Syrian ports between Karatash and Latakia, and the same regulation will apply to arrivals from Red Sea ports.

COPPER IN THE TREATMENT OF DISEASES OF PLANTS.

FRESHLY precipitated and moist copper hydrate seems likely to occupy a place in agricultural science next in importance to that of manure. A mixture of lime and copper sulphate has been employed for some time now with success as an insecticide or germicide in the treatment of disease of the vine, potato, and tomato; and quite recently M. Aimé Girard applied the same mixture to sugar beet plants threatened with the attacks of a specific fungus, which gives rise to the disease known as "peronospora Schachtii." Three per cent. solutions each of copper sulphate and lime are mixed with water, and the mixture sprayed on the crop with an apparatus which a labourer can carry on his back, so enabling him to dress four rows of beet at a single operation. Under this treatment the disease is said to be effectually stayed, the leaves to become more luxuriant and the stalks to be so preserved that those attacked grew richer in saccharin constituent, while the proportion of sugar in the root was found to have increased 1·58 per cent. All this must be of special interest to the sugar-grower, whose loss from this cause is often considerable, but it cannot fail also to engage the attention of the agricultural chemist. As every student of elementary chemistry knows, lime-water (hydrate) and copper sulphate give calcium sulphate and copper hydrate; but it is to the latter body of course that the fungus-destroying action is due. Copper hydrate would appear to act on fungi as a weak solution of perchloride of mercury, without, however, affecting the growth or life of the plant, and its action may possibly be akin to that which takes place when it is added to solu-

tion of peptone-albumose. With this body it combines to form an insoluble compound—a reaction which has been taken advantage of in the separation and estimation of this variety of peptone. The effect, however, of using copper compounds for purposes of the kind above mentioned must be watched with due care, as plants are known to assimilate the metallic salts with readiness. Cereals, for instance, have been found to derive an important quantity of copper from the soil, and in view of the enormous consumption of sugar by infants as well as by invalids, the question may possibly become one of no little moment, upon the merits of which chemical analysis will, in course of time, decide.

ARSENIC IN WALL-PAPERS.

IN connexion with our observations in THE LANCET of July 4th on "Arsenic as a Domestic Poison," a correspondent informs us that, notwithstanding the now prevalent use of non-arsenical colours, the means of poisonous contamination still exist in many rooms where they are least expected. The reason for this is to be found in the custom of repapering a room without previously stripping it. Thus from five to twelve successive layers have been found on a single wall, the whole being strongly impregnated with arsenic used for the purpose of decoration at any time within the last twenty-five to fifty years. The fact is one too obviously instructive to call for more than passing comment, and it may explain some cases of obscure arsenical poisoning the nature of which without such evidence would be most difficult of detection. The paper last applied, if non-poisonous, must of course materially check the transit of arsenical particles from deeper layers; but it is, after all, an imperfect safeguard. Decomposition and sublimation between them, especially where aided by the wear of time or the solvent action of damp, must sooner or later shed some of the poisonous matter into the room. We need not now discuss once more the possible consequences, and it should not be necessary to impress the warning clearly conveyed in this timely revelation of a lurking danger.

BILIARY CIRRHOSIS IN CHILDREN IN INDIA.

WE are indebted to Surgeon J. B. Gibbons, of the Medical College of Calcutta, for an interesting contribution to the study of the morbid anatomy of a form of biliary cirrhosis in children in India. The paper is reprinted from the sixth part of the "Scientific Memoirs by Medical Officers of the Army of India," and is well illustrated. The disease presents several peculiar features. It attacks young children, usually under one year old. The liver primarily enlarges with comparative rapidity, and reaches an enormous size, contraction taking place subsequently. The disease seems to be almost invariably fatal. The appearances presented by the liver show that a formation of fibrous tissue begins within the lobules, and occurs independently of the portal sheaths, which undergo proliferation at a later date. The presence of abundant loosely-arranged fibres between the liver cells explains the large size of the organ. The cirrhosis is primarily inter-cellular; each lobule becomes encircled by a band of fibrous tissue. Diminution in the size of the liver follows, as in the ordinary form of cirrhosis, from the contraction of the inter-lobular bands. A destruction of the liver cells takes place, which, judging from microscopical and other observations, cannot be altogether accounted for by pressure. Jaundice is commonly present at later stages of the disease, and its appearance seems to be greatly dependent upon the amount of liver cells destroyed. In sections of the gland where the liver cells are found almost completely destroyed there is an apparent multiplication of the bile-ducts. The causation of this fatal affection of the liver is very obscure. It is not due to any of the usual causes of cirrhosis of the liver in adults; it is obviously not attributable to alcohol, and there is no clinical evidence whatever that it is due to syphilis. Surgeon Gibbons suggests that the disease may be brought about by the products of faulty digestion caused by unsuitable food, but there is not sufficient evidence at present to justify any positive opinion.

INTERNATIONAL CONGRESS OF THE RED CROSS.

THE Red Cross Associations organised in the European States which have signed the Geneva Convention have had the laudable custom of holding international meetings, at which the interests of the sick and wounded in war are practically considered, and the arrangements for a more effective and harmonious furtherance of those interests discussed and agreed upon. The first of these congresses was held in Paris in 1867, the second at Berlin in 1869, the third (*longo intervallo*) at Geneva in 1884, and the fourth at Carlsruhe in 1887. At this latter it was resolved that in future the congresses should meet every five years, the *locus in quo* of the succeeding congress being then undecided. The International Committee of Geneva has just proposed that the congress should hold its fifth meeting in Italy next year, and the Central Italian Committee, duly notified of the fact, has completed negotiations with the Government, according to which the seat of congress will be Rome, and April or May, 1892, the month in which it will assemble. Conformably with this arrangement, the president of the Italian Red Cross Association has already, in accord with the Geneva International Committee, sent off circulars to the central committees of the Red Cross Associations throughout Europe, inviting their presence and coöperation at Rome in April or May, 1892, the precise date to be subsequently fixed. In the invitation are also included the representatives of branch associations, so as to leave out no element which may conduce to the success of the Congress and of the important interests it has undertaken to promote.

THE IRISH CHANNEL CATTLE TRADE.

IT is much to be hoped that the discussion in the House of Commons on Tuesday night on the cruelty to which cattle are subjected in their conveyance from Ireland to Scotland and England will bear fruit. Mr. Parker Smith's account of the way in which cattle suffer in their journey to Glasgow was very sad, and his allegations do not seem to have been seriously contradicted. All sorts of representations have been made to the Irish Privy Council and to the Lord President. It is said that the gangways are narrow, the cubic space is deficient, and that the animals slip on wet floors and sustain bruises in falling. The space between decks is stated to be so low that they bruise their backs by standing upright, and four out of six, it is alleged, have their hides torn by the violence with which they are dragged about.

HAS INFLUENZA AN EXTRA-MUNDANE ORIGIN?

AMONGST the many ingenious hypotheses put forward to account for the origin and spread of influenza, it is interesting to observe one which approximates to a certain extent to the doctrines of those early Italian physicians who assigned a name which has the merit of vagueness and nescience—a name for which even now we are not prepared to find a better substitute. It would appear, however, that there is something still to be said for an extra-mundane origin of this mysterious affection; and the case has been well put by Mr. G. H. Willis, who adduces facts from

Dr. Parsons' report to prove not only that the spread of the disease is unaffected by aerial currents, but in opposition also to Dr. Parsons' contention that it is mainly propagated along the lines of human intercourse. Mr. Willis suggests (*The Times*, July 10th) that the disease which visits so suddenly and simultaneously so many parts of the earth may take its rise in the intrusion into the atmosphere of some poisonous gas of such density as to penetrate, in spite of the law of diffusion, to the surface of the earth, over which it would necessarily tend to travel, in the main, in a westward direction, modified variously by the lower currents of the atmosphere. Such an assumption may serve to explain many of the singular facts noted in connexion with the occurrence of pandemics; but it involves also the absolute abandonment of any hope that science will ever find means to prevent the disease. When sanitation has banished all specific fevers, the human race will still be prone to infection (if that term is permissible in this relation) on the large scale from sources beyond the limits of terrestrial activity.

CE-CREAM POISONING.

IN the *Philadelphia Medical News* Dr. Hull calls attention to this subject. From the fact that ice-cream is *par excellence* a national luxury of the United States, poisoning from the use of this delicacy is much commoner there than it is amongst us, still such an accident is not uncommon in this country, and any attempt to throw light on its causation is worthy of attention. The poisoning which occurs Dr. Hull regards as dependent upon the structure of the freezer mostly used. This in its usual form consists of an iron paddle coated with zinc, resting on an iron bottom coated with the same metal, and a surrounding tinned-copper or tinned-iron can. It is, in short, according to Dr. Hull, a modified form of galvanic cell, and he found by means of the galvanometer that even with the purest and simplest ice-cream mixture there is considerable deflection of the needle, indicating the production of a current, and with a mixture which had become in any way sour or impure the deflection was much greater. Thus pure cream deflected the needle 4°; sour cream turned it to 90°; pure milk registered 40°; pure milk with corn starch or sugar added, 45°; and if eggs were incorporated with it, the needle moved to 80°. If by any chance salt finds its way into the mixture, the deflection is greater still. It is evident from the current generated that there is a considerable destruction of the metal, and that this is the case even when the mixture is quite pure; while, when it is sour or impure in other ways, the breaking up of the metal is very much greater, and the danger of metallic poisoning is correspondingly increased. If these conclusions are correct, it is evident that some new form of freezer, if possible consisting of only one metal, should be used, or at least that extreme care should be exercised in seeing that all ingredients are pure, that the freezing is rapidly done, and that the paddle is removed as soon as the freezing is completed.

URETHANE IN THE URINE.

IN the *American Practitioner and News* Dr. Rademaker gives the results of his examination of large quantities of albuminous urine. He has always found present in such urines a crystalline organic compound soluble in water, ether, chloroform, alcohol, and benzol, and almost insoluble in petroleum ether. This compound is isolated by evaporating several pints of albuminous urine to dryness on a water bath, and extracting the residue with 98 per cent. alcohol, and filtering. The alcoholic solution is then allowed to evaporate at a low temperature. The oily residue is treated with dilute sulphuric acid, and extracted with ether, and the ether allowed to evaporate spontaneously. The residue was found to contain urethane in an impure state. By further treatment the impurities were got rid of and the substance deposited in crystals. Normal urine, on being treated in the same way, did not yield a trace of urethane; but if an alcoholic extract of such a urine was evaporated at a high temperature, urethane was always formed. Dr. Rademaker is of opinion that in the presence of this substance, which is a powerful narcotic, is to be found the explanation of uræmic coma.

CARBOLIC ACID AS A LOCAL ANÆSTHETIC.

DR. C. T. MEACHER, in *Items of Interest*, an American Dental journal, suggests a 5 per cent. solution of carbolic acid in water as a local anæsthetic that is safe and reliable. Four or five drops should be injected under the gum on each side of the tooth to be extracted. He says in most cases this is effective, and where inflammation exists around the root the action is most satisfactory. Dr. Meacher thinks that with moderate care there need be no fear of constitutional symptoms arising, considering the small quantity used. M. Viau of Paris, who read a paper on the subject before the Société d'Odontologie in 1886, expressed his opinion that it was of quite as much power as cocaine, and did not produce any dangerous symptoms.

THE BULLETINS OF MR. SPURGEON'S ILLNESS.

MR. SPURGEON'S illness is a matter of public interest. Like the rest of the world, we have watched with pain the public intimations concerning his health—pain of a somewhat complicated kind; first, at their gravity, as indications of disease in one whose life is so much prized; and, secondly, at the absence of professional reserve in their details. It might be supposed from them that the public were familiar with all the pathological changes occurring in interstitial nephritis. A bulletin is not supposed to give such information, which simply shocks and puzzles the public. Yet they have been multiplied *ad nauseam* in the press, and read out, not once but even a second time, to the great congregation in the Metropolitan Tabernacle. The public have a right to know the chief particulars of the health of public men; but it has neither the right nor the wish to know, nor have the members of our profession the right to divulge, details which are only proper to the bedside, and can only be appreciated by those who have received medical training. The publication of such bulletins in the daily press cannot be too greatly deplored.

A PRIVATE HOME FOR PATIENTS AT PLYMOUTH.

A HOME for private patients, especially such as have need of surgical treatment and nursing, has been opened at Woodside, Plymouth. From the newspaper accounts, the grounds command a fine and extensive view, and the house is replete with every convenience and accommodation, including the most recent improvements in beds, appliances, sanitary arrangements, &c. The purchase and preparation are the work largely of the medical profession. We do not know to what extent the profession has expressed approval. The promoters have constituted themselves as a limited liability company. The directors are Mr. Pearn (Chairman), the Right Hon. the Earl of Mount Edgcumbe, General Fowler Burton, and Messrs. J. J. MacAndrew, William Square, F.R.C.S., and Paul Swain, F.R.C.S. The Lady Superintendent, Miss Champion, has had a thorough hospital training, and has trained nurses for her assistants. We can well understand that such an institution will have great uses, and may well justify its existence. We shall not be thought unfriendly if we point out the feature of it which appears to us most open to criticism. We are always suspicious of

any arrangement which brings medical men and their profession into alliance with commercial companies. The company is apt to push matters in a way that is not consistent with professional considerations. No doubt the medical members and promoters will be a check to this tendency, but limited companies must have dividends, or their *raison d'être* is apt to be considered imperfect. *Verbum sapienti, &c.* We assume that the rules for guarding the rights and feelings of the profession will be effective, and that no undue effort to attract patients will be made. It is stated that patients will be under the care of their own professional advisers—a very proper provision.

DR. BACCELLI AT THE POLICLINICO.

ON Sunday last the President of the Accademia Medica di Roma addressed his constituents, who on the following Sunday will have to reaffirm their choice of him as deputy to the Italian Chamber for the first electoral division of Rome. Count Antonelli, the African explorer, presided, and the place of meeting was appropriately the Policlinico, the vast medico-chirurgical hospital virtually created by Dr. Baccelli. The speech was characteristically liberal in tone, and generously patriotic in sentiment. Turning from the past to the present, he said: "Not more than 150 men, according to the average of human life, separate the Romans of to-day from Julius Cæsar, but now we seek to replace the conquests of the sword by the conquests of science. The edifice in which we are met has no rival among the scientific structures of Europe, and when in 1893 the International Congress of Medicine will come to inspect it, the distinguished surgeons and physicians of other lands will do homage to the spirit of renovated Rome." From this he passed to the cognate institution, the "Palestra Ginnastica," where the physical frame will be as carefully disciplined in health as in the Policlinico it will be tended in disease. The whole speech, which was enthusiastically received, was redolent of the scientific and humanitarian spirit which makes the presence of such men as Guido Baccelli in the Italian Chamber a feature in her political life on which Italy may justly congratulate herself.

UNIFORM HOSPITAL ACCOUNTS.

THE subject of uniformity in hospital accounts is very much "in the air" just now, and various questions suggested by it are receiving discussion—in particular, the general form which any such statement should take. Some points connected with this matter, as that the statements published should be given with such fulness and detail as to make fraud and peculation as nearly as may be impossible, are so obvious as to be universally recognised; but there is one function of such publication, which is, perhaps, in danger of being overlooked, although it was recently brought prominently to the notice of the Lords' Committee—namely, that a properly devised form of account may be made to conduce greatly to economy and efficiency of management by exhibiting the comparative results obtained by a given expenditure in various institutions. It has been conclusively shown that an expenditure account which contains only such items as the butcher's bill and the baker's bill, and the like, will not serve this purpose. Hospitals are organised in so many different ways that even when the most precise agreement has been come to concerning the classification of items, the same result may still be exhibited in the most various ways. For example, no great doubt can arise as to what is butcher's meat, but butcher's meat may be purchased for the supply of patients, or of domestic servants or of the nursing staff, or of the secretary and his family, or of the medical officers, and it is evident that a more accurate representation of the working of the institution would be given by entering the value of allowances of such food made to any of these officers as salaries than by including them, as is commonly done, under one undiscriminating head, whatever the name by which it figures in the account. The same thing applies to the item rent, and to many others. Hence, no form of statement will be satisfactory from the point of view of the public which does not distribute the expenditure under *various departments*, and make it possible to ascertain by an examination of the figures how much of the total expenditure subserves directly the work of charity, and how much is devoted to bearing the burden of incidental expenses. There is incomparably more money lost to charitable uses every year through unwise though perfectly honest administration than through fraud; and while, therefore, the importance of adopting effective measures to keep down fraud should not, and indeed cannot, be lost sight of, it is of even greater, and much more practical importance at the present time to devise measures which will have the effect of bringing questions of economy into a clear light, and educating the inferior managers up to the level of their betters by that most effective of all methods—public criticism in the light of comparative results.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE directors of the Society for the Relief of Widows and Orphans of Medical Men met for their quarterly court on Wednesday, July 8th, the President, Sir James Paget, in the chair. Three new members were elected, and the deaths of Dr. Monro and Sir Prescott Hewett, a Vice-President, reported. It was resolved that £1366 should be given to the sixty-three widows, twelve orphans, and four orphans on the Copeland Fund, as grants for the current half year. The expenses of the quarter were £45 16*s*. On the recommendation of the Committee of Visitors, the grants to two widows were each increased by £10 per annum.

SMALL-POX AT DEWSBURY.

SMALL-POX at Dewsbury and Batley has again led the guardians to open their workhouse hospital for the purposes of isolating that disease, whether in paupers or non-paupers. The arrangement is not only illegal, but highly dangerous to the general body of inmates in the workhouse; for not only do the hospital and the workhouse closely adjoin, but the general administration of both buildings is the same. And on a former occasion the same practice led to extension of small-pox to the workhouse inmates; a class of persons who, of all others, ought not to be thus exposed, because many are, by reason of sickness and otherwise, confined there without fault of their own, and they are unable to leave. We trust that there is truth in the announcement that hospitals for the sanitary authorities of the Dewsbury Union are in contemplation.

THE CITY DAY CENSUS.

ALTHOUGH the national census shows that the resident population of the City of London continues to decline by "leaps and bounds," the results of the City day census prove, if proof were necessary, that the City as a business centre is far more crowded with day workers than it was ten years ago. It is reported that on April 27th last, when the day census was taken, the number of persons found to be engaged within the City was 391,381, which exceeded the number at the day census in 1881 by 40,320. The number of women engaged in the City during the day has increased from 44,179 in 1881 to 50,416 in 1891; and the number of children aged under fifteen years has increased from 19,235 to 21,305. If any persons exist who were likely to misunder-

stand the true import of the remarkable decline in the numbers of the resident population of the City in recent intercensal periods, the result of the day census may be useful in affording evidence of the still increasing activity of this beehive of the commercial world; and presuming that the system adopted for taking the recent day census is practically identical with that adopted in 1881, the results are not without a certain statistical interest, although their practical utility is somewhat doubtful. It is stated the cost of this day census which falls upon the City has already exceeded £1200, and it may be interesting to note that if the national census had been equally expensive in proportion to population its cost of collection would have exceeded £900,000, instead of little more than a tenth of that sum. The City day census is evidently an expensive undertaking.

BAD EXCUSES FOR HOSPITAL ABUSE.

"A LADY who doesn't know better" writes to the *St. James's Gazette*, protesting against the fuss made about people who can pay going to hospitals. We must not take the letter too seriously, for it has not a very serious look. Most humorous is the first idea, that medical men have an interest in keeping the lady "dangling as long as possible." The second is perhaps not quite so funny, but it is equally wide of the truth: "London doctors are so *ridiculously* dear," as if there ever was a time when medical charges were so ridiculously cheap. Competition has sometimes made even graduates of the best universities forget the cost of their education and the dignity of their calling. We must keep asserting the great evil of hospital abuse, and make those who are guilty of it understand that they are acting without self-respect, and disrespectfully towards a great and learned profession, which has made itself too cheap in the past.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

WE would direct attention to the letter in another column urging the claims of the above useful Association. It has done much good work in the past, and is altogether an essential body in affording a guarantee of the character and quality of experimental observations, which have for their sole object the advancement of the science and art of medicine. The Association has, moreover, taken an active part in the furtherance of these objects in appointing a commission upon cholera and in sending a delegate to Berlin to study Professor Koch's method of treatment of tuberculosis. We trust, therefore, that the Association will receive abundant support from those who can appreciate and value the work it is doing.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. M. Rubner, Professor of Hygiene in the University of Marburg, has been offered the Directorship of the Hygienic Institute, vacated by Professor Koch.

Giessen.—Dr. Ferdinand Fuhr has been promoted to an Extraordinary Professorship of Surgery.

Jena.—Dr. F. Skutsch has been promoted to an Extraordinary Professorship of Gynæcology.

Prague (Bohemian University).—Professor Maydl of Vienna has been selected for the chair of Surgery, vacant by the death of Professor Weiss.

AT the next meeting of the Council of the Royal College of Surgeons, on the 30th inst., a member of the Court of Examiners in Surgery will be elected to fill the vacancy caused by the retirement of Mr. Berkeley Hill. Candidates must send in their applications before the 23rd inst.

H. CROOKSHANK PACHA, Inspector General of Prisons, Cairo, F.R.C.S. Edin., has received the assistance of the Khedive in his efforts to establish an asylum for criminals under fifteen years. On the occasion of his setting out for New York, where he is to be married on the 5th of next month, his Highness presented to Crookshank Pacha a magnificent "*collier de scarabées*," mounted in gold, as a wedding present for his *fiancée*.

THE Ospedale Maggiore at Milan has just received from the Duchessa Eugenia Litta Bolognini, who recently lost her husband and her second son, a donation of 500,000 francs—the proceeds of the sale of her jewels. The special department of the hospital thus munificently endowed is that of the Children's "Clinico-Chirurgico," or ward for the surgical lesions of children, and is intended as a memorial to the young Duca Litta Bolognini, prematurely deceased.

IT is stated by a Dalziel telegram, dated the 15th inst., that Professor Bergmann and Dr. Hahn have been ordered to answer within twenty-four hours the charges of having inoculated pauper patients with cancerous matter.

DR. A. TUCKER WISE (Swiss Federal diploma) has received permission from the Sanitätorath (Medical Council) of the Grisons to practise in Davos.

Pharmacology and Therapeutics.

NAPHTHALINE AS A VERMIFUGE.

According to Dr. Mirovich of Bielsk, naphthaline is an admirable remedy not only for ascarides, but for tapeworm. He considers it much more certain and far less poisonous than most of the other vermifuges. For grown-up people he prescribes a fifteen-grain powder, to be followed immediately by two ounces of castor oil. For two days before this dose the patient is directed to live on salt, acid and highly seasoned food, then the naphthaline is given fasting early the following morning. In the case of children naphthaline may be mixed with castor oil, flavoured with a drop or two of bergamot. In all the cases in which this plan was carried out, including some in which more ordinary means had failed, the whole tænia was expelled with its head after the first dose.

MERCURIAL OINTMENT IN GLANDERS.

Dr. Gold of Severinovka, near Odessa, has been fortunate enough to cure two cases of glanders occurring in peasants by means of rubbing in strong mercurial ointment. In both cases there was bronchial trouble, pyrexia, and a considerable number of indurated nodules, as well as soft, fluctuating, and even phlegmonous swellings all about the body. The examination of the purulent and serous contents of these at the Odessa bacteriological station showed the presence of the virus of glanders, as animals inoculated from cultures succumbed to a disease typically resembling glanders. Half a drachm of very strong mercurial ointment was rubbed in twice a day in each case for about a month, when the cure was complete. The effect on the mouth was combated with chlorate of potash gargles, and the suppurating spots were treated by poulticing, incisions, washing out with solutions of perchloride of mercury, and dressed with iodoform gauze. The first of these two cases was treated in 1888: the patient is still alive and in the best of health. Dr. Gold has had some thirty cases of glanders in his practice, all of which have proved fatal except these two. The idea of using mercury was suggested to him by the fact that in some respects there is a similarity between glanders and syphilis, and by the active microbicidal properties of mercury.

ARISTOL IN BURNS AND SCALDS.

Dr. Heinrich Stern, of New York, having used aristol in two cases of burns and scalds, speaks highly of its influence in promoting early and rapid recovery. In the first case

the injury was a burn of the forearm of the "fourth degree"; the skin and subcutaneous tissues had been destroyed, the parts turned hard, dry, and eschar like, the surrounding skin became contracted and folded. Aristol and vaseline in the proportion of one to ten were at once applied. The eschar separated completely by the fourth day, and under the continuous use of the ointment suppuration was limited, and granulation and repair were completed in less than a month. In the second case, a child of four years old fell in a bath of hot water, and blistering resulted nearly all over the body. The largest blisters were punctured, and aristol and vaseline in the above-mentioned proportions were applied, and recovery was complete in the course of about two weeks.

REPORT OF THE LANCET

Special Sanitary Commission

ON THE

REHOUSING OF THE POOR AT MANCHESTER.

THE position of Manchester in respect to sanitary reform, with regard more especially to the rehousing of the poor, is particularly interesting at the present moment. Manchester and Liverpool are, after London, the two most important towns in Great Britain. The population in each town is about the same, the last census giving the population of Liverpool as 518,000 and that of Manchester as 505,300; but during the last ten years the population of Liverpool has decreased to the extent of 6·2 per cent., while that of Manchester has increased 9·3 per cent. The death-rate in both towns is exceptionally high, and the condition of the housing of the poor particularly unsatisfactory. Taking the medical officer of health's return for the first quarter of the current year, we find that during each of the first quarters of the last four years the rate of mortality in Manchester averaged 30·5 per 1000 per annum, but that the death-rate of this year's first quarter was below the mean to the extent of 9 per cent., as it amounted to 27·8 per 1000. Even at this reduced rate the mortality of Manchester was 4·8 per 1000 higher than that of the twenty-eight great towns, though they contain an aggregate population of more than 10,000,000 people. The death-rate of the twenty-eight great towns amounted to only 23 per 1000. Of course, many causes contribute to bring about this result. The high death-rate is not due exclusively to overcrowding and defective sanitation. The fact that so many women work in mills and workshops, and consequently grossly neglect their children, is one of the very evident causes of the mortality. But the bad housing of the working and labouring classes is undoubtedly also another among the principal reasons of this high death-rate. This is very generally acknowledged. The Manchester and Salford Sanitary Association, which is one of the oldest organisations ever started to agitate in favour of sanitary reform, has by many years of persistent work brought this fact home to the minds of the inhabitants of Manchester. A very loud outcry has been raised. The corporation governing the city of Manchester was fairly besieged on all sides. Something had to be done to satisfy the public clamour, and the first act was that of appointing Dr. John Tatham as medical officer of health for Manchester. Dr. Tatham had distinguished himself, when medical officer for Salford, by the courage with which he struggled against those members of the local authority who were opposed to measures of sanitary reform. He was therefore carried into office on the crest of the wave of sanitary reform; but this appointment did not suffice to allay the outcry for reform, and a scheme of improvement was promptly prepared which gave the greatest promise of useful results.

An area in the centre of the town was selected. The property most certainly deserved condemnation. This fact was admitted by the corporation so far back as the autumn of 1889, when it was decided to lodge a petition with the Local Government Board, asking for a local inquiry. In November of the same year a Bill was prepared for Parliament, entitled the Manchester Dwellings' Scheme, 1890, by which the corporation were to have the right of expropriating the owners of the condemned property, and of erecting in its stead suitable dwellings or lodging-houses for persons of the working class. Four different areas were included in this scheme. The first, that already mentioned, measured 19,271 square yards, and had 1250 inhabitants; the second, 4233 yards, with 400 inhabitants; the third, 863 square yards, with 120 inhabitants; and the fourth, 956 square yards, with 100 inhabitants. The cost of the land and improvements was set down at £103,000. The interest of this scheme rests not so much with the size of the areas involved, but on the far-reaching plan of action on which it is based. The corporation intended on the first and largest area to build a model common lodging-house, similar to those already built by the city of Glasgow and fully described in these columns. This common lodging-house, like those of Glasgow, was to remain the property of the town. On the remaining land model tenement dwellings or artisans' cottages were to be built, and let out directly by the municipality to the occupier. This being accomplished, the municipal property was destined to serve as a model and a menace to all property owners. Having set the example, the authorities of the town were to treat all owners of insanitary and degraded property with unprecedented severity. They were to be told that if they did not make their houses as good in every respect as the houses, &c., owned by the municipality, they would, in their turn, be expropriated, and the town would undertake to build proper dwellings. In a word, the corporation was about to compete with private owners, and compel the latter to vastly improve their property, or to sell out.

This seemed a bold scheme, and at first sight gave every promise of success. Unfortunately we have to deal with a number of details that combine together to thwart the scheme. A very important change has taken place in Manchester during the last thirty years, and it very disadvantageously affects the powers for doing good the municipality would otherwise possess. Formerly most of the owners of the property tenanted by the poor of Manchester were fairly respectable people. They had of necessity, however, to employ a very harsh class of men as rent collectors, or property agents. These agents were often rough, hard, uneducated men, the very last class of person likely to appreciate the broad interests of humanity involved in the cause of sanitary reform. Yet these property agents have now become to a very large extent property owners. The former owners, sometimes gentlemen of broad and generous views, were also often spendthrifts. They therefore too readily consented to accept loans of money from their rent collectors, and the latter thus gradually became owners of the property for which they had been but the agents. Soon a numerous class of people commenced seeking by every means to become the owners of poor cottages and of bad property. By the operations of building societies also a good many houses have passed into the hands of this class of person.

The mischief this has wrought will be easily understood. As a class these owners are opposed to sanitary reform. It is the bad, overcrowded, degraded, and insanitary property that, in proportion to the capital invested, brings in by far the largest profit. The tenants for the most part pay their rent once a week, and are very often a few weeks in arrears. They stand therefore in terror of the collectors, who at any moment may throw them out into the street. As most of these tenants occupy, not lodgings, but cottages, they have votes for the election of the Town Council, but they generally vote for the nominee of their landlords. Thus this new class of property owners, which has sprung into existence within the last few years, influences both the poor and the members of the Town Council. Yet, and in spite of this undoubtedly strong and hostile influence, the very bold scheme of sanitary reform we have described above was adopted by the town and received the sanction of Parliament.

If we look a little below the surface, it will be seen that those who receive their income from the poor may still hope to enjoy for some time to come a very large measure of immunity. It will soon be discovered that, after all, the Housing of the Working Classes Act of 1890 works to the advantage of the landlord. With the exception of the 10 per cent. extra compensation for compulsory sale, it is in the main a repetition of the Land Clauses Act. The sum of compensation which the sanitary authority must give to owners of condemned property has to be fixed by an arbitrator, and this arbitrator can, if he chooses, take into

consideration not what the property is worth, but what it may be worth by-and-by. He may make allowance for the unearned increment that may accrue at some future date. Nor is this all; the owners of the property, however vile and worthless it may be, have the right to retain counsel at the expense of the sanitary authority. Consequently they often employ the most expensive legal advice available to defend their interests. In this way the legal costs are sometimes greater than the value of the property; and in practice the cost of expropriation is likely to prove prohibitive. The length of time which the arbitrator takes to investigate the claim, the costs incurred by the owners of the condemned property, result in so heavy an outlay that the whole scheme is handicapped at the very commencement, and the hope of financial success rendered doubtful. Obviously, condemned property should not be treated in so lenient a manner. If a property is in a good condition and does no one any injury, and yet the owner has to be expropriated so as to make room for some public works, thoroughfare, or other improvement, the desire to treat such an owner fairly and generously can be understood and approved. But where the owner so far fails in his duty to maintain the property in a sanitary condition that it becomes unfit for human habitation, and the sanitary authority have to go to the trouble of taking this property over so as to pull the bad houses down and build good houses in their stead, the claim to full compensation does not hold good.

At Manchester, however, everything indicates that the law costs will be so heavy and the compensation given to the owners of the property so liberal that the sanitary reformers will be discouraged and the scheme will not be followed up. The actual scheme will of course be carried out, but the rehousing of some 2000 persons out of a population of more than half a million will not very materially contribute to reduce the Manchester death-rate. It was, above all, the effect that this scheme would have on the owners of bad property which promised to produce such good fruits. If, on the one hand, the owners of the condemned dwellings had been expropriated at a comparatively small cost and at some loss to themselves; and if, on the other hand, the property thus municipalised proved a source of income to the town, then the threat of treating other property in the same manner would indeed serve as a sword of Damocles and terrorise speculators in bad property and make them put their houses in order. As it is, such persons will not care for the threats of the sanitary authority. They will know that these threats are not likely to be carried out on account of the great expense, and that in any case they will get good compensation. Thus the poor of Manchester will continue to be badly housed in spite of the large sum the municipality is now expending.

Yet the difficulty of dealing with such an area as that we inspected ought not to be great. There can be no possible hesitation as to the necessity of pulling it all down. The entrance, for instance, by a particular court presents a most deplorable picture. The houses on either side of this court, though facing the main road, are so old and dilapidated that there is not a straight line remaining. The floors, the steps, the gable of the roofs, the frames of the windows all slant in different directions and have ceased to be horizontal with the street or the foundations. The passage or court is a yard wide, and across are beams and planks, so placed as to prevent the houses on either side from falling in upon each other. Alone they could not stand, and yet they are inhabited. Beyond the court passage there are some very small two-roomed houses, these rooms measuring 845 and 847 cubic feet of space each. Who can say how many persons have slept at one time in these very small houses? The statistics of the number of inhabitants were taken long after it was known the district was about to be condemned. Every preparation had been made for the inspection, and it was carried out during the day, so that there was no reliable knowledge gained as to the overcrowding. Yet, even under these circumstances, seven inhabitants were found in two rooms measuring in all 2645 cubic feet. The space in the bedroom was only 1210 cubic feet, so that if they all slept together there would be but 174 cubic feet each. Another house of two rooms measuring 1104 and 1305 cubic feet was occupied by two families numbering six persons in all. The inside space in one house was only 1690 cubic feet, and there were four inhabitants; next door the house measured 1694 cubic feet of space and had five inhabitants. It may be argued that this makes a little more than 300 feet for each person, which is sufficient under certain circumstances, such as in a dormitory with efficient ventilation and little or no furniture. But these houses contain lumber and furniture and sometimes a hawker's stock-in-trade. The breathing space is thus very considerably reduced. Some of the inhabitants are Italians, organ-grinders and penny ice dealers. What the condition of ices made in such courts must be had best be left to the imagination. Other inhabitants are very poor labourers, and of course the habits of this class of tenants do not tend to improve the property. The scenes of misery, of squalor, and of dirt to be witnessed within these small rickety houses are truly appalling. The dirt and despair of the one discourages the other, and these tenants will never be raised from their present abject condition till they are removed to better surroundings.

In hopeful contrast with this scene of misery is the exhibition in one of the rooms of the municipal buildings of the plans and drawings for the rebuilding of this rookery. A competition has been organised for the best scheme for the artisans and labourers' dwellings that are to be built by the town on the condemned area. These plans are replete with all manner of of conveniences, even of luxuries and artistic attractions. Thus one designer carefully provides sills on all the windows for the cultivation of flowers. On each floor there are shoots for coal and for rubbish. On the roofs there are terraces. There are separate, well-ventilated, well-flushed, waterclosets for males and females. There are hot and cold water baths, recreation grounds, and gymnasium. Special inlets and outlets for the ventilation of rooms is provided, independently of the opening and shutting of windows or of doors. In fact, the projects exhibited suggest what will be considered a workingman's palace when compared with the existing slum. Such a transformation should be hailed with joy and hope by those who have at heart this great question of the housing of the poor, and perhaps, by promptly exposing the dangers and obstacles that are in the way of thorough and wide-spread reform, the results may be more favourable than we are at present tempted to anticipate. In any case, it is very necessary that the sanitary reformers at Manchester should not be content to rest on their laurels; otherwise, the improvement about to be realised, the scheme now sanctioned, may be utilised, not as an example to secure other and greater progress, but rather as a scarecrow to frighten the ratepayer and prevent further attempts being made in a similar direction.

A TEACHING UNIVERSITY FOR LONDON.

A COMMITTEE of the Privy Council, consisting of the Lord President (Viscount Cranbrook), the Earl of Selborne, Lord Monk-Bretton, Lord Basing, and Lord Sandford, sat at the Council Office, Downing-street, on Monday, and delivered their judgment upon the arguments upon and objections to the petition on behalf of King's College and University College in favour of a Charter for the establishment in London of a Teaching University, with power to confer degrees.

The Earl of SELBORNE delivered the judgment of the Council. With regard to the question of qualification for degree, their lordships understood the petitioners to mean that a minimum of a two years' *bonâ-fide* course of study in London should be required in the latter part of the time necessary for degrees. Their lordships were satisfied that that was a sufficient guarantee, and upon that understanding they did not think it necessary to say anything more. The objection of the London University to a medical faculty was of a general nature, and their lordships also generally disallowed that. With regard to the name, the "Albert University of London," in the proposed Charter, the new institution ought not in any way to interfere with the existing University of London, which was set up by Charter and by law. Therefore, the name "London" must be omitted from the title, and their lordships suggested that it should be called either the "Albert University" or the "Albert Metropolitan University" in the new Draft Charter. As to the opposition of the Royal Colleges of Physicians and Surgeons and of the Medical Schools, their lordships thought the claim of the Royal Colleges to a control of the

medical faculty in the new University was not admissible. They also thought that the condition of as many as ten members on the Council, as direct representatives of the Medical Schools, was too many in the event of the Royal Colleges being represented as proposed; and they suggested that it should be offered to the Medical Schools to fill five places on the Council by alternate elections, in such order as they might agree upon; or, as an alternative, that the members of the Medical Faculty belonging to each school, might elect one member each for the Medical Board of Studies. Whichever of these two alternatives was most acceptable their lordships would approve of. In any case, their lordships thought the power of making regulations as to medical studies and examinations should be safeguarded in one or other of the two ways which the petitioners for the Charters in their recent communications with the Medical Schools have declared themselves willing to accept. If the Colleges and Medical Schools agreed to come in on the terms offered, the total numbers of the Council might be raised. Their lordships did not mean to preclude consideration of that number in settling the revised Charter, but it had occurred to them that perhaps forty, including the Chancellor, would be sufficient in the event specified, in which case their lordships suggested that the other four members should be given to the faculty of law, who should be elected by the legal faculty unless the Council of Legal Education and the Incorporated Law Society should both agree to come in, in which case both of these bodies might elect one member of the Council and the legal faculty two. If the Royal Colleges should decline to come in on these terms, their lordships thoughtthat the six places now proposed to be given to them on the Council, and four more, might then be offered to the ten Medical Schools, thus giving the amount of representation to these schools for which they asked. Their lordships thought that, as it was the desire of the Medical Schools, if they were associated with the new University, to be called colleges rather than schools, they might be called colleges of medicine in the University, but their lordships thought none of them should be also described as Schools or Colleges in science; but that the teachers in any branch of general science should be admitted as members of the Science Faculty of the University. If the Medical Schools declined to come in on those terms, and the Royal Colleges also declined, their lordships thought that the six places on the Council which it was now proposed to give to the Royal Colleges might be supplied in the manner suggested in the twenty-ninth paragraph of the Royal Commissioners' report, and the same principle so far as necessary might be applied to some sufficient number of members of the Medical Board of Studies in the same event. While, then, their lordships were of opinion that the present necessity should be met in one of the ways suggested, they thought that provision should be made for the case of a subsequent accession of the Royal Colleges and the Medical Schools, or any of them, if they now declined, and for any modification of the constitution and numbers of the Council which might in that case be agreed upon. With respect to the opposition of the Apothecaries' Society, their lordships thought it sufficient to give to the Council of the new University, when constituted, power, if it should be thought well, to assign a place or places upon the Council to that Society, but they were not disposed to insist at the present time upon that being done. With respect to the petition of the Bedford School of Women, their lordships thought their claim to be admitted as a college should be best dealt with by the authorities of the New University when constituted, and that it could not at present be satisfactorily determined. As to the petition of the Incorporated Law Society, their lordships did not think it necessary to add anything to what had been already said. The other points which their lordships thought it necessary to notice were these:—Their lordships were of opinion that no honorary degrees should be granted in medicine. In the clause of the Draft Charter, giving the power of conferring honorary degrees, there was at present language pointing particularly to persons who have had a certain connexion with the colleges which would be colleges in the new University, and their lordships were of opinion that the particular references to these colleges or any other institution should be omitted, and that the power to confer honorary degrees should be general. Their lordships desired to remind counsel for the promoters of the new Charter that they understood them to agree that faculties should be electoral bodies only, as recommended by the Royal Commissioners, and that a consultative function should be given to Boards of Studies only. With regard to the question of area, their lordships thought it preferable to take the area of the county of London in preference to the fifteen miles radius proposed. A question had recently been put upon the supposition that, without special provision to the contrary, tests might be imposed in the new University as to those faculties which were included in it, and as to the candidature for degrees in these faculties. Their lordships suggested that care ought to be taken in the revised Draft Charter to remove any question on that point in accordance with the precedent that the law has established in the older universities. There were some other details which were not the subject of argument which occurred to some of their lordships during the argument as being objections which they would take for granted would be properly considered in the preparation of the revised proposed Charter.

Mr. GWYN JEFFRIES said he had been instructed on behalf of Queen's College, which had not received any notice of these proceedings, and he wished to address a few words to their lordships.

The EARL OF SELBORNE said it was too late to hear any further argument, but they would deal with the Queen's College in these circumstances as they would with the Bedford College for Women.

Mr. RIGBY, Q.C., in reply to the Earl of Selborne, stated that no time would be lost in communicating with the clerk of the Council as soon as the revised Draft Charter was ready.

The proceedings then concluded.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Taunton Urban and Rural Districts.—In the town the increased use of the public water-supply renders it necessary to extend the reservoir accommodation; extension of the sewage outfall works has also been decided on, and attention is paid to the question of nuisances, general inspection of localities, trades, &c. The death-rate for 1890 is given as 18·5 per 1000, and the zymotic rate as 2·5. In all, 115 cases of infectious disease were notified, and Dr. Alford states that, of this number, 49 were removed to hospital. No less than 82 cases of diphtheria were heard of, and, as school attendance was associated with its spread, the elementary schools were closed. This action is stated to have led to the disappearance of the disease; but the date of the closure and the possible influence of season in the diminution and subsidence of the prevalence are not noted. In the rural district the rate of mortality was 15·5 per 1000. The sanitary hospital received 53 cases of diphtheria, 28 of scarlet fever, besides a few other cases; and, as in former years, it has served a most useful part in the prevention of infectious disease.

East Dereham Urban District.—Mr. H. R. Vincent's report deals largely with statistics and occurrences of disease, but none of the more preventable amongst the latter were on any important scale. The general death-rate for 1890 was 17·3 per 1000 living. The drainage arrangements, with one or two exceptions about to be remedied, are good; the water-supply is satisfactory; but, as is so often the case, the sanitary authority prefer to know of nuisance and failure in connexion with scavenging when undertaken by occupiers than to take upon themselves this very necessary duty. The cost of the former system is almost always greater than when a properly organised system is maintained by the authority.

Swansea Rural Sanitary District.—This district is divided between Mr. Rice Morgan, who holds the Llangyfelach division, and Dr. D. Griffiths, of the Llandilo-Talybont division. The rate of mortality was 17·6 and 21 per 1000 in the divisions respectively. In the former some work as to the improvement of water-supplies was carried out during the year; others are in contemplation, and plans for a new

cemetery have been prepared. Sanitary work is well to the fore, and for two years consecutively there has been no death from enteric or typhoid fever in Clase, notwithstanding a not inconsiderable population. In the latter division certain occurrences of fever led to active measures that may be hoped to prevent its recurrence, and also to the use of the Fever Hospital. Drainage systems are becoming more and more pressing for the populous centres, and the system for the disposal of excreta needs the attention of the sanitary authority.

Warrington Urban District.—Mr. Gornall estimates the population of Warrington at 50,000, which gives a death-rate of 22·7 per 1000 during last year. Whilst the deaths from scarlet-fever and measles are diminishing, those for diphtheria and enteric fever have doubled since 1889, and the zymotic rate is as high as 3·8 per 1000. The increase of the former disease is not explained, but in connexion with enteric fever it is pointed out how retention of excreta in pails and otherwise seemed to operate injuriously. Increase of such a disease should certainly receive the grave attention of the sanitary authority. Notification is in operation, and 135 patients were received into the infectious hospital. The services rendered by this institution may be judged by the fact that since it was opened in 1877 no less than 2022 cases have been isolated in it, attendance by private practitioners on their own patients being allowed; whilst the general supervision of the institution is vested in Mr. Gornall.

Gloucestershire Combined Sanitary Districts.—The sanitary work now so long maintained by Dr. Francis T. Bond in this important combination of sanitary districts has told with much effect on its death-rate. For years past it has varied only between 14 and 16 per 1000 living; last year it was 14·8, and the benefit that has resulted has had largely to do with the saving of infant life and the prevention of death from the more preventable diseases which attack adults. Referring to the notification of infectious diseases, Dr. Bond does not advocate the inclusion of measles amongst the notifiable diseases. So few cases, he says, are attended by medical men, and the diffusion of the disease is very rapid. Other health officers have, on the other hand, declared its inclusion to be of the greatest value in respect of infant-school restrictions. Chepstow and Tetbury rural districts have as yet no notification, and hand-in-hand with this unwillingness to learn what disease is prevailing is the failure in many districts of this combination to provide means of isolation for first attacks heard of. Combination for this purpose ought to be practicable, and such an arrangement would probably conduce to economy and efficiency together. In addition to a general account of the sanitary circumstances of the combined area, of the improvements effected, and of the current work carried out, a separate chapter is devoted to each of the constituent sanitary districts.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5719 births and 3029 deaths were registered during the week ending July 11th. The annual rate of mortality in these towns, which had declined in the preceding six weeks from 30·9 to 17·7 per 1000, further fell last week to 16·8, a lower rate than in any week since September, 1889. The rate was 16·7 in London and 16·9 in the twenty-seven provincial towns. During the thirteen weeks of the last quarter the death-rate in the twenty-eight towns averaged 26·2 per 1000, and considerably exceeded the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates last week in these towns were 12·4 in Norwich, 12·8 in Sheffield, 13·2 in Derby, and 13·6 in Bristol; the highest were 20·4 in Liverpool and in Cardiff, 21·3 in Salford and in Oldham, and 21·7 in Preston. The deaths referred to the principal zymotic diseases, which had been 339 and 309 in the preceding two weeks, were 310 last week; they included 98 from whooping-cough, 78 from diarrhœa, 66 from measles, 28 from diphtheria, 22 from scarlet fever, 17 from "fever" (principally enteric), and 1 from small-pox. No deaths from any of these diseases were recorded last week in Bristol, Birkenhead, or Bolton; while they caused the highest death-rates in Liverpool, Preston, Plymouth, and Sunderland. The greatest mortality from measles occurred in Plymouth, Cardiff, Preston, and Sunderland; and from whooping-cough in Manchester and Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the twenty-eight large towns. The 28 fatal cases of diphtheria included 21 in London. One death from small-pox was registered last week in London, but not one in any of the large provincial towns; 3 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 857, against 891 and 866 at the end of the preceding two weeks; the patients admitted during the week were 79, against 76 and 91 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding eight weeks from 620 to 237, further fell last week to 187, and were 14 below the corrected average. The causes of 40, or 1·3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Leeds, Sheffield, and in ten other smaller towns; the largest proportions of uncertified deaths were recorded in Liverpool, Hull, Newcastle-upon-Tyne, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding five weeks from 25·2 to 20·6 per 1000, further fell to 18·8 during the week ending July 11th, but exceeded by 2·0 the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 13·5 in Perth and 16·1 in Aberdeen to 18·7 in Paisley and 21·5 in Glasgow. The 484 deaths in these towns showed a decline of 46 from the number in the preceding week, and included 14 which were referred to whooping-cough, 13 to diarrhœa, 12 to measles, 4 to "fever," 1 to scarlet fever, and not one either to small-pox or diphtheria. In all, 44 deaths resulted from these principal zymotic diseases, against 69 and 46 in the preceding two weeks. These 484 deaths were equal to an annual rate of 1·7 per 1000, which corresponded with the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 19 and 15 in the preceding two weeks, further declined to 14 last week, of which 7 occurred in Glasgow and 4 in Edinburgh. The deaths from measles, which had steadily declined in the preceding five weeks from 27 to 15, further fell last week to 12, of which 10 were recorded in Glasgow and 2 in Paisley. The 4 fatal cases of "fever" exceeded by 2 the number in the previous week, and included 2 in Edinburgh. The death from scarlet fever occurred in Aberdeen. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 143 to 106 in the preceding three weeks, further fell last week to 77, and were 10 below the number in the corresponding week of last year. The causes of 39, or more than 8 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 17·9 and 21·1 per 1000 in the preceding two weeks, declined again to 18·8 during the week ending July 11th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·7 per 1000, the rate for the same period being 23·8 in London and 21·0 in Edinburgh. The 127 deaths in Dublin during the week under notice showed a decline of 16 upon the number in the preceding week, and included 3 which were referred to whooping-cough, 3 to "fever," 1 to diphtheria, and not one either to small-pox, measles, scarlet fever, or diarrhœa; in all, 7 deaths resulted from these principal zymotic diseases, against 5 and 9 in the preceding two weeks. These 7 deaths were equal to an annual rate of 1·0 per 1000, the rate from the same diseases being 2·0 in London and 1·8 in Edinburgh. The fatal cases of whooping-cough, which had increased from 1 to 6 in the preceding three weeks, declined again last week to 3. The deaths referred to different forms of "fever," which had been 1 and 3 in the previous two weeks, were again 3 last week. The fatal case of diphtheria was the first recorded in the city since the beginning of April last. The 127 deaths in Dublin last

week included 13 of infants under one year of age, and 29 of persons aged upwards of sixty years; the deaths of infants showed a marked decline, while those of elderly persons slightly exceeded the number in the preceding week. Thirteen inquest cases and 6 deaths from violence were registered during the week, and 45, or more than a third, of the deaths occurred in public institutions. The causes of 9, or more than 7 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE RECENT ELECTION AT THE COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—I am obliged by your kindly notice in the leading article of to-day upon this subject, and I am especially grateful for your complete unfolding of "the dominant idea of the official mind." I have in my possession a collection of facts and documents which amply prove your statements, and some day I may have to make them public. I wish only at present, however, to point out how curiously blind the official mind is, because the only result of its present action is to forward a leading principle of my policy—that is, to increase the provincial representation upon the Council. If they succeed in keeping me out only by getting another provincial candidate in, everyone must see that my present intention of continuing my candidature indefinitely will result in a complete fulfilment of my wish, even if that candidature never should prove successful. So long, therefore, as I think it well to remain a Fellow of the College, I shall appear annually as a candidate for election upon the Council, and I trust the official mind will remain as it is at present. The very fear which it seems to have concerning my presence on the Council ought to constitute in itself a strong argument in favour of the Fellows supporting the reform movement. There must be something radically wrong amongst officials when they have to turn the whole of their united strength against one poor country surgeon. I need not say that I am greatly obliged to the medical journals for their consistent and unanimous support of a policy of reform, for their trenchant advocacy of the same, and for their many kind expressions of approval of my own actions as a representative of the reform policy. I am also equally indebted to the increasing number of Fellows who lend us their support in fighting this necessary battle.

I am, Sirs, yours truly,

LAWSON TAIT.

The Crescent, Birmingham, July 11th, 1891.

ALCOHOL AND LONGEVITY.

To the Editors of THE LANCET.

SIRS,—Mr. Hardy has replied to one point of your first annotation on the subject of Alcohol and Longevity, and will, I presume, write to you again. Therefore I will only say now that you assume that all the 490 transfers from the temperance section were on account of ill health. That is a very important assumption and not true in experience. Under present circumstances of social pressure and custom there are many abstainers, I am sorry to say, who give up being so without the excuse of ill health; others no doubt who make trifling ailments the ground of changing, but have other reasons. It is impossible to discover the real cause of these 490 transfers. But you make another assumption, that all, or most of these, 490 *died during the decennium*, and must "go a very long way towards explaining this deflection." This is extremely improbable, although I shall be glad if it is possible to trace these lives and discover the actual number of deaths. But if your point were admitted, for the sake of argument, it still leaves a considerable balance on the side of total abstinence, enough to prove that the habitual use of alcohol shortens the average duration of life. If the current opinion were right—namely, that alcoholic liquors "do people good" and promote health and strength—then the 725 who transferred themselves to the temperance section must have injured their health in consequence, and we should expect to see their longevity reduced; the result is just the contrary. I have obtained particulars from two large offices respecting their experience. In one case the actual claims are fewer than the expected claims, and the percentage is lower than that of the general section of the United Kingdom Provident Institution. But in the other the actual claims for the last two years exceed the expected. It would not be surprising that the general section's mortality should be higher than that of other offices, because all abstainers (good lives for some reason or other) are eliminated. In other offices all are mixed together, and hence the average would be reduced. I may add that I am informed that the difference between the two sections is greater after the age of sixty than before it. I suggest that the explanation is that the degeneration of tissues caused by the continuous moderate use of alcohol is slow in progress, and that the cells and tissues become prematurely old, and unable to resist morbific influences.

I am, Sirs, yours truly,

Enfield, July 14th, 1891. J. J. RIDGE,

Hon. Sec. British Medical Temperance Association.

*** Our correspondent appears to have somewhat misunderstood our attitude in this discussion. The evidence adduced, rather than the inference drawn, is what we have criticised. The evidence to be convincing ought to be conclusive, and the "extreme improbability" of one view is no sufficient proof for this purpose of the reverse.—ED. L.

To the Editors of THE LANCET.

SIRS,—In your issue of June 27th there appears a letter from Dr. Ridge—which escaped my notice—with statistics based on the calculations of the United Kingdom Temperance &c. Institution. From these statistics, as I gather, Dr. Ridge arrives at the very curious inference that the high rate of mortality in the general section of this office, as compared with the temperance section, is "not due to excessive drinking on the part of any number," but, on the other hand, is principally due to the moderate drinkers, or, to use his own words, "rather more moderate than the average middle-class picked lives," and he bases his deduction on the fact that "in the general section the deaths are below the healthy averages."

It certainly appears to me a novel and curious kind of argument to advocate the cause of total abstinence by producing statistics to prove a higher rate of mortality from drink and in the same breath to attribute the increased mortality to "more moderate" drink than usual; because if this proves anything, it simply proves that moderate drink *in toto* is more perilous to life than actual drunkenness. This, moreover, seems to me a curious method to dissuade the general public altogether from stimulants; but with due respect to Dr. Ridge, I believe this deduction to be erroneous. Although, Sirs, I have noted this anomaly, I am prepared to submit that the statistics of insurance offices should be tested on a much broader principle; and it is upon the principle that when we take into consideration what a powerful incentive to and predisposing cause of drink disease is (and we can test this in our everyday experience), we are bound to assume that a greater or less number amongst Dr. Ridge's general section have been exposed to less favourable conditions of health than an equal number of the temperance section, and that this less favourable condition of health would have operated in shortening life *per se*. It is considerations like these of which insurance offices are unable to take cognisance that in my humble opinion render their statistics as an index to the therapeutic action of alcohol absolutely null and void.

I am, Sirs, yours truly,

CLEMENT H. SERS, L.R.C.P., L.R.C.S.

Queen's-road, S.W., July 14th, 1891.

"TREATMENT OF CANCER AND LUPUS."

To the Editors of THE LANCET.

SIRS,—I am so far glad that Dr. Hardwicke has seen fit to correct in your columns the remarkable statement in a London daily paper of June 19th that, believing he had discovered a means of curing cancer, he was said to be anxious and willing to place the details before such of his medical brethren as expressed to him any desire to be acquainted with them. The friends of a patient

of mine, deeply suffering, saw this paragraph, and desired me to inquire about it. As it did not purport to be an advertisement, and credited Dr. Hardwicke with the laudable anxiety to be frank with his brethren, I felt I could not refuse to inquire for details, when I received the reply from Dr. Hardwicke that the newspaper report somewhat misrepresented him, and "the treatment has not yet reached that state of perfection that would justify me in making any public statement, or otherwise publishing details." He added, "I hope to be able to place something useful before the public soon." I wrote suggesting to Dr. Hardwicke the desirableness of his correcting the statement in the newspaper that he was ready to communicate the details to his brethren; but he took no notice of this. I thought it so important that I asked the journal in question to do so; but it did not in any way notice my request. I then communicated what I had done to Dr. Hardwicke, and I received a castigation from him which could not have been more severe if I had charged Dr. Hardwicke with instigating the paragraph in the newspaper.

This is a slight matter as far as it affects the courtesy or otherwise of the correspondence between Dr. Hardwicke and me, though I must say that I acted with perfect respect to Dr. Hardwicke. But as it regards the public, and especially the most pitiable subjects of cancer, it is a most grave matter. Only such sufferers and their medical men can realise the cruelty of premature notices of cure, especially in newspapers where they are seen by the credulous. When they are not only premature, but contain an invitation to medical men to invite details, they are specially pernicious, and should have the immediate disclaimer of any medical man whose name is involved. If I am right, Dr. Hardwicke should on June 20th have had his disclaimer in the journal which made the statement. Up till now I have not seen or heard of such a disclaimer. The letter in THE LANCET will be seen by the profession who have not necessarily seen the paragraph in your daily contemporary, and who will certainly not be misled by it. The readers of the paper in question and the cancer sufferers are still, at the end of three weeks, in the happy belief that Dr. Hardwicke has a cancer cure of which he is so sure that he has taken his brethren into confidence, and possibly they are rushing to him in hundreds. I ask you, Sirs, for your opinion of the duty of medical men who are misrepresented in such vital matters by newspapers, and also of medical men whose patients are so misled.—I am, Sirs, yours obediently,

Highbury-place, July 15th, 1891. J. G. GLOVER.

SHIP SANITATION AND SHIP SURGEONS.

To the Editors of THE LANCET.

SIRS,—This important subject was brought before Parliament last night, and there is only time for this week's issue of THE LANCET to quote a few out of many undeniable facts from a series of eleven published letters on "Ship Sanitation" and from my book, "The Ship's Surgeon of To-day," that have been submitted, as they appeared in print from October, 1889, to February, 1891, to the Marine Department of the Board of Trade, as well as to the leading steamship companies, medical schools at home and in the United States of America, &c. First, in 1886 the managers of a first class Atlantic line declined to reappoint me (after performing for three years the duties of ship surgeon of ss. *C*—— in the "most careful, attentive, and efficient manner") when they had read and treated with silent contempt two respectful sanitary reports containing, amongst others, these complaints—viz.: *Ventilation.*—Two ventilators improperly removed.—Defective ventilation of firemen's room, through foul emanations from filth beneath the wood between it and the iron deck, causing an epidemic of blood-poisoning and one death, only remedied by strong protest and earnest request.[1] Large steerage hospital, main deck, has no ventilator, boarded up to roof all round. Chief hospital of s.s. *C*——, occupied by purser for nearly the three years I was her ship's surgeon. Another hospital occupied by the refrigerator official. The death of head steerage steward A., accelerated through disregard of my frequent medical warnings that his health was breaking down under the steerage foul atmosphere. Secondly: In the spring of 1889 the directors of another (perhaps the most experienced of the Atlantic lines), declined to reappoint me—although they wrote "your conduct has been entirely satisfactory to those captains under whose command you sailed"—after they had perused my sanitary reports, containing, amongst other complaints, the following—viz: Firemen's room constantly wet from bad ventilation and drainage. This company forbid, since 1885, the ship's surgeon to supply the Board of Trade with the complete sanitary report alluded to above, deliberately drawing their pen through the vital question (amongst other expunged questions) of ventilation, thus compelling the unprotected ships' surgeons to insult and silence their consciences, and the manager directed that the doctor's mutilated reports should be sent in the ship's despatch box under cover to him! Here is their official order to their surgeons upon the ships' hospitals. "The hospitals are to be under the surgeon's charge only when occupied by patients, at which time he will be responsible for their cleanliness and proper ventilation. When unoccupied they are to be at the captain's disposal." Consequently their hospitals are sometimes occupied by steerage passengers, as in s.s. *B*—— last year. I respectfully submit that these facts afford proof that seamen and their ship's surgeons have substantial grievances because ship owners will not conscientiously carry out the sanitary improvements to which the crews are entitled by the official regulations.[2]

In another letter I propose to submit to the profession some more important facts to meet the evasive reply of the President of the Board of Trade.

I am, Sirs, yours faithfully,

Seaforth, July 15th, 1891. C. H. LEET, F.R.C.S.

[1] The new deck cost the managers £100.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

To the Editors of THE LANCET.

SIRS,—Will you allow us to bring before the notice of the medical profession the important Association known by the above name, and remind them of the nature and value of the work in which it is engaged? It may be remembered that the Association was called into being at the time of the passing of the "Cruelty to Animals Act," when a sudden hindrance was thrown in the way of physiological and pathological investigation. It was therefore deemed advisable by many of the leaders of the profession in London to form an Association to protect and assist those who were engaged in these important pursuits. The contributions allowed us for a time to assist these gentlemen by pecuniary grants, but of late we have been able to do little more than aid intending investigators by advice and help in obtaining their licences. These gentlemen have expressed themselves thankful for the assistance thus afforded them. The Association has hitherto been supported mainly by those who have been interested in scientific work; but now that researches are taking a wide range, including many subjects in practical medicine, an appeal for assistance is made to the profession at large. The valuable results already obtained from the pathological laboratories are too well known to need any comment. Our old friends and supporters have already commenced to aid us by the following contributions:—Dr. Geo. Johnson, £5 5*s.*; Dr. Sydney Ringer, £3 3*s.*; Dr. Lauder Brunton, £5 5*s.*; Dr. Pye-Smith, £10 10*s.*; Dr. Woodhead, £1 1*s.*; Dr. Sherrington, £2 2*s.*; Dr. Wilks, £2 2*s.*; Mr. Bryant, £3 3*s.*; Mr. Durham, £5 5*s.*; Sir J. Paget, £5 5*s.*

ANDREW CLARK, President of the R.C.P.
THOMAS BRYANT, President of the R.C.S.
} Presidents of the Association.

JAMES PAGET, Chairman of Committees.
SAMUEL WILKS, Treasurer.
STEPHEN PAGET, Secretary.

Contributions may be sent to the Treasurer, 72, Grosvenor-street, or to the Secretary, 57, Wimpole-street.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

To the Editors of THE LANCET.

SIRS,—Will you permit us very briefly to call attention to the fact that the International Congress of Hygiene and Demography will open on Aug. 10th next, under the presidency of H.R.H. the Prince of Wales. The various sections of the Congress are now busily engaged in completing their

[2] Quoted from my letter on Ship Sanitation addressed to General Manager, Shipping Federation, London, Feb. 9th, 1891.

programme, and the names of upwards of 700 delegates from various corporate and scientific bodies at home and abroad have already been received. While the success of the Congress is in a great measure assured by the arrangements already made, we have to point out that the contributions towards the cost of the organisation are not yet equal to the anticipated expenditure, and we have reason to believe that a sum of £1500, in addition to the amount already contributed or promised, will be required. Hitherto the meetings of this Congress have been held in countries in which the State has defrayed a portion of the cost; but on this occasion a government grant not being available, we are obliged to appeal for help to public bodies and private individuals interested in sanitary progress. We shall be thankful if those who are willing to help us will send their contribution with the least possible delay. Tickets are now ready, and can be obtained on application to the Hon. Secretary-General, 20, Hanover-square, W. (Member's ticket £1; ticket for lady accompanying gentleman 10s.) Ladies and gentlemen who intend to be present at the Congress will greatly facilitate the work of the officers by applying for their tickets at once. Subscriptions will be received by the Hon. Secretary-General, Dr. G. V. Poore, or by the following bankers: Sir Samuel Scott & Co., 1, Cavendish-square, W., or Messrs. Prescott, Dimsdale, Cave, Tugwell, & Co., 50, Cornhill, E.C. We have the honour to remain, Sirs,

Your obedient servants,

DOUGLAS GALTON,
Chairman of the Organising Committee.
W. ROBERT CORNISH,
Chairman of the Finance Committee.
G. V. POORE,
Honorary Secretary-General.

20, Hanover-square, W., July 15th, 1891.

THE USE OF MODIFIED OPIUM SMOKING IN PULMONARY TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—The communication of Dr. Dill on the above subject in THE LANCET of July 11th is of great value. I too have very little faith in the reported evil effects of opium smoking. I have tried it for the relief of pain and have found it beneficial, though of decidedly feeble action as a narcotic. In one point, however, Dr. Dill is not quite satisfactory. What does he mean by the word "smoking"? As applied to the use of tobacco, the term generally means simply tobacco burning. Real smoking means inhaling the tobacco into the air passages, not simply drawing the smoke into the mouth and puffing it out again. This latter process is that which is adopted by the great majority of smokers of tobacco. Inhaling the fumes produces in the case both of tobacco and of opium much more marked effects. It is this that the Chinaman does. He does not "swallow" the smoke, but he "inhales" it. It seems to me that merely "mouthing" the smoke of the medicated tobacco mentioned by Dr. Dill cannot be nearly so useful for the object he has in view as "inhaling." Perhaps Dr. Dill takes it for granted that all smokers do thus inhale; but that is not really the case, as slight observation will prove, and it strikes me that not only prescribing, but instruction in the use of the remedy is necessary.

I am, Sirs, yours truly,

Finsbury-circus, July 10th, 1891. W. HENRY KESTEVEN.

PROPOSED INCREASE IN THE NUMBER OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—I wish to ask through your columns each registered medical practitioner who approves of the petition relating to the above, and which appeared in THE LANCET of June 20th, to write his name, qualification, and address on a piece of foolscap paper, and forward it to me at the earliest. I have secured the permission of the Privy Council to *gum* on signatures to the petition sheet, as if this were done without permission it would render the petition useless. A halfpenny stamp will be sufficient postage. This and the above plan of signing the petition should encourage the majority of the profession to sign.

I am, Sirs, yours faithfully,

Liverpool, July 15th, 1891. ROBERT REID RENTOUL.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday.

AT a recent meeting of the general committee of the Hospital Saturday Fund the report of the executive committee was presented. Among much interesting matter, it was shown that a contribution of £3134 in the year 1878 had grown in 1891 to the magnificent amount of £10,867 19*s.* 3*d.*, the popularity of the movement had not been retarded, and the efficiency of the organisation was still as excellent as ever. The proceeds were divided among the various charities. An interesting discussion followed the proposal to establish a convalescent home in connexion with the movement as a memorial of the work done, and as a method of dealing with the permanent contributions. The subject was referred to the executive committee to consider and report at a future meeting.

Birmingham and Midland Eye Hospital.

The sixty-first annual meeting of the governors was held on the 14th inst. The report showed that the present number of in-patients was limited to 55, while the daily average had been 54. The annual subscriptions this year had been £2708. The total number of patients treated during the year was 21,429, an increase over the year before of 830. The average daily attendance of patients was 127, and the average stay of each in-patient was 17·93 days; 588 operations were performed on in-patients, 290 being for the removal of cataract; 3534 patients were supplied with spectacles during the year. The report further indicated the vast amount of work that is being done under the auspices of this valuable charity.

Playing at Hanging.

An inquest was held on the 14th inst. on the body of a boy aged ten who was found with a rope round his neck, the opposite end being attached to a bar on the mantelpiece. A witness stated that the children were fond of playing at hanging, the other children being six and two years of age respectively.

Cycling Accident.

A lamentable accident lately occurred near Stourbridge. Three cyclists were going up a steep hill, with lamps lighted, and necessarily at a slow pace. Two carts were descending the hill, within twenty yards of each other. The night being dark, the driver of the first shouted that there was another cart behind, but apparently the warning was unheard or unheeded. All three cyclists came into collision with the second cart; one was killed outright, the other two were seriously injured; while the driver of the cart was thrown out and sustained very serious injuries. No blame was attached to anyone.

Responsibilities of Medical Men.

At a meeting of the Birmingham Board of Guardians, held on the 15th inst., the report of the Central Relief and Dispensary Committee was read stating that they had made a complete investigation into the causes of a recent death, and that no blame was attached to any officers of the board. They recommended if the parish medical man or his deputy was not at home the services of a private practitioner should be obtained in such cases of emergency. Some discussion followed on the question as to who should bear the expense, and the report of the committee that it should be undertaken at the expense of the board was finally adopted. An important point is thus conceded to the parish medical officers and much anxious responsibility saved.

Birmingham, July 16th.

THE SANITARY INSTITUTE.—H.R.H. the Duchess of Albany has graciously expressed her intention of being present on Saturday, July 25th, at 3 P.M., to present the certificates awarded to ladies on a course of lectures on Domestic Hygiene.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Proposed Hospital Extension.

LITTLE progress has been made towards any practical solution of the vexed question of additional hospital accommodation. The most important contribution made lately to it has been a long letter from the dean of the Medical Department of the College, the tenour of which goes to prove that, by comparison with other towns, Manchester is deficient in the number of beds in our general hospitals necessary to supply the needs of the district; and that the present site of the infirmary is not the most healthy or of sufficient size for the proposed extension of the existing building. The dean, Dr. Young, of course is a warm champion of the College proposals, and many of his data will be called in question by those who take the infirmary side. His figures would show that Manchester has only one bed to 1351 inhabitants, whilst Liverpool, he says, has one to 689. But it is well known that the figures representing the population of Liverpool do not include many thousands of people living in the adjacent districts into which Liverpool proper has overflowed during the past ten years. Again, he gives the number of beds available here as 374, apparently made up of the Royal Infirmary and the Ancoats Hospital, ignoring the fact that the infirmary has a large supplemental hospital at Cheadle of nearly 200 beds, to which patients are drafted for a time, to return if necessary to the infirmary wards. It is strange that whilst this subject of increased accommodation is agitating the infirmary, the large and well-equipped hospital in Ancoats is languishing for want of funds; beds and wards it has in plenty, but no money to keep them in use. Nearly thirty beds are to-day empty for lack of means, whilst the infirmary exchequer is overflowing. It is singular how even charity flows most in the more fashionable channels, while other institutions equally deserving appear to be left out in the cold. Among recent bequests the College has received £5000, the Royal Infirmary £2000, St. Mary's Hospital £2000, and the Hospital for Incurables £5000, by the will of the late Miss Bradford, and the Infirmary £500 again from the late Mr. Scott Brown; but nothing has found its way to the Ancoats Hospital.

Religious Tests in Hospitals.

A superintendent of nurses has recently been appointed to the large Hospital at Hope belonging to the Salford guardians, and some comment has been made upon the fact that the various candidates before the committee were questioned as to their religion. Correspondence in the local press since has led to the impression that although no "test" may be applied, yet that nurses belonging to the Roman Catholic Church are practically boycotted. It may safely be asserted that this does not apply to our large general hospitals, whatever may be the case at the workhouse infirmaries.

Clinical Teaching in Poor-law Infirmaries.

Some of the guardians of the poor evidently have strange notions as to what takes place in the wards of a hospital where clinical teaching is carried on for medical students. A proposal made by Dr. Rhodes, one of the Chorlton guardians, that they should allow the Union hospitals to be used for medical instruction, under such regulations as the Local Government Board may think satisfactory, met with considerable opposition. One gentleman thought the doctor had no time to attend to students, and "the poor patients would not like to be experimented on." Another that the patients "would not like to be made an exhibition of," &c.; "they were poor, but they should be respected." It is a pity those who talk like this cannot go round a ward with one of our physicians and his class to disabuse their minds of erroneous conceptions, evidently evolved from their own imaginations.

The Ship Canal and Foul Water.

Already some complaints have been made as to the smells arising from the stagnant water lying in the docks of the ship canal. This is but a slight foretaste of what will happen when the time shall have arrived for filling these with the contents of the open sewer commonly known as the river Irwell, unless some vigorous efforts be made to stop the pollution of this and its tributary streams.

Manchester, July 14th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Sunderland: Alleged Libel on a Sunderland Surgeon.

AN extraordinary charge of libel by a woman on a Sunderland surgeon came before the Sunderland magistrates last week. The prosecution was undertaken by the Medical Defence Union. The case, as stated, was that the defendant, the wife of a commercial traveller, had published defamatory libels reflecting upon the character of a surgeon in Sunderland, well knowing them to be false. It was shown that a large number of letters—between fifty and sixty were produced—had been sent to patients of the practitioner reflecting upon his moral character. It was shown that the letters were written by the defendant, as proved by her servant, who had marked some she was directed to post for her mistress. The surgeon who made the charge was in attendance upon the defendant, and the latter pretended to be anxious to aid him in finding out the writer of the letters, the general tenour of which was as follows: "Do you know the character of the man who is your doctor? He has already two mistresses in the practice—one a commercial's wife, conveniently near, and the other a solicitor's wife. It won't be long before their names are on every tongue, and it behoves respectable people to show that they are a filthy lot, the whole of them; they believe that a certain lady whom Dr. X. attended for ten years will shortly give Dr. Z. up simply because she has heard of his loose character." Evidence having been given, the defendant was committed to take her trial at the ensuing assizes, bail being allowed, herself in £20 and two sureties of £10 each. Comment is made on the light amount of bail required to answer for a charge of this serious nature, and for libels (if proved to be such) of such an atrocious nature.

The Sunderland Census.

The report on the census of the borough of Sunderland has been presented by the medical officer of health, Mr. A. E. Harris, to the Borough Health Committee, in which he says that when the number of the population of the borough was ascertained at the recent census he expressed himself dissatisfied at the result, his reason being that the enumeration fell short by nearly 6000 of the natural increase of the population—that is, the excess of births over deaths. In the ten years since 1881–90 there were, Mr. Harris says, 48,004 births and 28,016 deaths in Sunderland, thus giving an increase of 19,988 to the population, and he thinks it is reasonable to suppose that the population may have increased by at least this number. Mr. Harris further says that it may be said with strict truth that never before in the history of Sunderland has there been so much building done as in the decade 1881–90. Taking the trade and commerce of the port into consideration, the number of houses built in the borough, and the excess of births over deaths, he is convinced that the population—viz., 130,921—is under-stated.

Stockton and Middlesbrough.

It was stated at the last meeting of the Stockton Urban Sanitary Authority that, owing to efficient isolation being practical, a case of typhoid fever had been sent to the Middlesbrough Fever Hospital; but a communication had been forwarded to the Local Government Board with a view to an inquiry being held to enable the authority to borrow £10,000 to erect a new fever hospital.

Singular Death.

An inquest was held last week on the body of a furnaceman at one of the large ironworks in Middlesbrough, who was accidentally killed in the following manner. While ascending a lift—the top being nearly reached—he was in the act of uncorking a bottle of ginger-beer, the contents of which spurted in his face, causing him to throw his head back, which was caught between the lift and the framework, killing him instantly.

Ambulance Work at Darlington.

Mr. Jackson has been instructing a class in ambulance work formed from the railway staff employed in the various traffic departments at North-road, Darlington. On the completion of the lectures and the examination of the class by Dr. Ellerton of Middlesbrough an illuminated address of thanks was presented to Mr. Jackson, as he had expressed a wish that no testimonial should be given him.

The late Miss Hannah Pickard of Green Mount, Ossett,

Yorks, who died on June 29th, left £34,950 to be given for charitable purposes. The legacies include £2100 each to the Ossett Grammar School, the Ossett Technical School, and the Ackworth Schools to found scholarships. Altogether nearly fifty charitable and educational institutions benefit under the will.

Newcastle-on-Tyne, July 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Edinburgh Medico-Chirurgical Society.

THIS Society held its last meeting for the session on Wednesday of last week. After the exhibition of pathological specimens, Dr. Galland read a paper "On the Function of the Tonsils." After describing their structure, and referring to their development, he discussed the various views held as to their function. He maintained they had no absorbent function, and could not have, as there was an outward current in them. He regarded them as seats for the reproduction of leucocytes and as protective organs. He thought they occupied their special position as a means of arresting and destroying many micro-organisms, and thus safeguarding to a considerable degree the respiratory and digestive systems. Other speakers did not acquiesce in the views advanced. The next paper was by Dr. Smart, and was entitled "Clinical Experimental Inquiries to determine the Influence of Diet and Drugs in the Elimination of Sugar in Diabetes Mellitus." These included three series of experiments—one to ascertain the influence of cereals and vegetables; two the influence of animal food and mixed diet; and three the influence of stimulants. The observations were presented in tabulated form, and the influence of these different factors was well brought out. One of the more interesting points elicited was that two cases under observation at the same time and under similar conditions showed a marked difference, one voiding nearly double the quantity of urine and sugar that the other did, but that this was in proportion to the appetite and thirst in the one demanding twice as much food and drink as the other. He had tried the effect of supplying cane sugar in quantity, and found that it was followed by an excretion of sugar out of proportion to the quantity taken—that, in fact, the sugar acted in increasing or stimulating the morbid action of the liver, and that it also acted in increasing the quantity of urine. Starch had a similar effect. The last paper, which was by Dr. Wallace, on "Notes from an Experience of Fifty Cases of Cystoscopic Examination," was taken as read owing to the lateness of the hour.

Edinburgh Public Health Committee.

This committee has had various matters before it at its last meetings. With regard to a public mortuary, it was the feeling of the committee that it should not be erected in connexion with the police-office, but on the ground attached to the City Hospital. In connexion with the City Hospital the committee recommend that the resident physician's salary be raised from £200 to £250 per annum, and a consulting physician be appointed at a salary of £150, who should instruct the students and visit the hospital at least three days in the week.

Edinburgh Public Health Returns for June.

During the month of June there were 460 deaths, making the death-rate 20·04 per 1000, as compared with 15·82 per 1000 during the corresponding month for the preceding five years. As regards age, 31·73 per cent. were under five years, 26·95 per cent. between thirty and sixty years, and 26·30 per cent. above sixty. Diseases of the chest caused 41·52 per cent. of the deaths, debility and old age 12·39 per cent., and zymotic diseases 7·60 per. cent. The birth-rate was 29·88 per 1000. During the month 25,485 lbs. of unsound meat had been seized or delivered up in the city.

Health of Edinburgh.

The mortality last week was 74, and the death-rate 14 per 1000. Diseases of the chest caused 20 deaths, and zymotic diseases 6, of which 3 were due to whooping-cough. The intimations for the week comprised: Typhoid fever, 3; diphtheria, 1; scarlatina, 11; and measles, 52. The number of deaths in Leith during the week was 24, making the mortality 18 per 1000.

The Notification of Disease in Edinburgh.

Dunfermline has been considering the necessity of providing hospital accommodation for the burgh, and the authorities had decided to act independently, and not to combine with the county in the matter. On the representation of the Board of Supervision they have reconsidered this point, and in a report submitted by the Edinburgh Medical Officer of Health through the Board the following occurs:—"I am not aware whether the Notification Act has been adopted in Dunfermline, but I am sure that the experience there will be similar to that of Edinburgh—viz., that the Act in question disclosed an amount of infectious disease in our midst of which the local authority was entirely ignorant. Before notification sixty beds sufficed for the isolation and treatment of cases of infectious disease in Edinburgh; while, since the Act in question was adopted, to the great advantage of the metropolis as an educational centre, 250 beds have not sufficed to meet the wants of the citizens in this respect."

Aberdeen University.

The classes closed at Marischal College on Friday last, and the "professional" examinations began on Saturday. The number of candidates is large. At a meeting of the University Court to-day it was unanimously resolved to accept a gift of £400 offered by Dr. Struthers on behalf of subscribers for the purpose of forming a foundation in anatomy at Aberdeen University. The sum is to be invested, and the interest is to go annually to provide a gold medal and a money prize to the student of anatomy or graduate of the University who submits the best preparation or series of preparations in anatomy, the preparations to pass to the Anatomical Museum. The awarding of the prize is to be in the hands of the Professor of Anatomy. Dr. Struthers and the subscribers were cordially thanked for the gift, and gratification was expressed that the foundation was to be "associated with the name of a professor of anatomy who had rendered invaluable service to the University."

Death of Dr. John G. Hall.

After an illness of about three weeks, Dr. John G. Hall of Aberdeen died on the 11th inst. Many readers of THE LANCET will read the intimation of Dr. Hall's death with surprise and feelings of genuine sorrow. He was only in his thirty-ninth year, and although he never seemed robust, yet no one ever suspected that his life was to be such a short one. Eleven years ago Dr. Hall was appointed assistant surgeon to the Aberdeen Royal Infirmary, and last year, on the retirement of Dr. Ogilvie Will, he was appointed third or junior surgeon. For several years (while the late Dr. Dyce Davidson was professor) he held the appointment of Assistant Professor of Materia Medica in the University of Aberdeen.

July 14th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Dublin Coronership.

THE election of a coroner for the city of Dublin in the room of the late Mr. Whyte took place on Monday, the 13th inst. Considerable interest was shown in the matter, and applications were received by the Town Council from eleven candidates. In order to qualify as candidates two members of the Corporation resigned their councillorships. The conditions of the appointment were as follows:—The salary to be £500 yearly, inclusive of all expenses for car hire and a clerk to be in daily attendance, and that the person appointed shall not in addition hold any public appointment to which any remuneration may be attached. It was further arranged that a property qualification should be £50 a year clear, and above all charges out of an estate or inheritance, or £100 a year in the event of any lesser estate. Some of the candidates having withdrawn or being deemed ineligible, eight candidates were duly voted for, and on the third or final ballot, Mr. Joseph E. Kenny, L.R.C.P. Edin., M.P., was successful, having obtained twenty-nine votes. This result, I may add, was generally expected by those competent to judge in the matter. Mr. Kenny will necessarily resign his appointment at the North Dublin Union Workhouse.

Catholic University School of Medicine, Dublin.

The draft scheme under the Educational Endowments (Ireland) Act, 1885, for the future government of this school of medicine contains the following provisions:—The Roman Catholic Archbishop of Dublin shall be the chairman, and the Rector of the Catholic University the vice-chairman of the board of governors, which later body will include representatives from the Faculty—viz., Drs. Quinlan, Hayes, and Birmingham; and Drs. Cruise and Madden and Mr. Tobin as representatives of medical science. The Faculty shall in the first instance consist of so many of the following as at the date of this scheme shall hold office as professors or lecturers in the school: Christopher Nixon, Francis Quinlan, Patrick Hayes, Charles Coppinger, John Campbell, Ambrose Birmingham, Anthony Roche, and Alfred Smith. These shall continue to be members of the Faculty so long as they continue to hold office in the school. Subject to this provision, all the professors of the school shall be members of the Faculty so long as they retain the office of professor; and the government may add to the Faculty persons holding the office of lecturer in particular departments to be specified by the governors, provided that the members so added shall not at any time be more than three. The Board of Visitors shall consist of four *ex-officio* visitors and three coöpted visitors, the latter being composed of the following if willing to act—viz., Right Hon. Christopher Palles, R. Carton, Q.C., and Sir John T. Banks, K.C.B.

Utilisation of Sewage.

At the annual meeting of the Society of Chemical Industry at Dublin last week, the president, Mr. Rider Cooke, delivered an address which was chiefly devoted to the subject of utilisation of sewage. He believed it would sooner or later have to be dealt with by the chemical engineer, to whom they should look to save the country from the enormous loss which at the present time was incurred by the want of scientific treatment of perhaps the most important product of their time. After speaking of the magnitude of the evil resulting from the pollution of water sources, he said he supposed there could be little doubt that, if properly utilised, the sewage of a country, together with the organic remains, such as the bones and the blood of animals which have been killed, should provide a fresh supply of food enough for the inhabitants of that country. If, instead of sending waste substances into the water, they were returned to the soil, the whole of the matter taken from it to form food would be restored, and be available for the new crops of food for man and beast. The requirements of a successful solution of the problem seemed to him to be—(*a*) The finding of a chemical or chemicals the use of moderate quantities of which shall immediately deodorise matter, and which shall arrest decomposition for some days. (*b*) The construction of an apparatus, with or without the means of separating the solid from the liquid matter, for the application of these chemicals which, while quickly removing the contents of a receptacle, shall be simple and cleanly in its action. (c) The provision of a receptacle in each house, which shall be readily accessible to the public authority, and which can be conveniently emptied. Whether the problem will be solved, he said, remains to be seen; but the object he had in view was to convince the members of their society that there was a great unsolved problem, involving the health as well as the wealth of the country, worthy of their attention.

Masonic Presentation.

At the last meeting of the Provincial Grand Lodge of Meath, held in the Masonic Hall, Cavan, a beautifully illuminated address and a gold repeater watch were presented to Brother Dr. F. E. Clarke of Boyle, who held the office of Provincial Grand Secretary from 1880 to 1890, in gratitude for his valuable services, and as a mark of affection and esteem.

University of Dublin.

The Medical Travelling Prize, worth £100, has been awarded to Wm. R. Dawson, M.B. The recipient is required to spend three months in the study of medicine in Berlin, Paris, or Vienna. Before the first instalment of £50 is paid he must satisfy the senior lecturer that he has a fair knowledge of a Continental language.

Dr. J. Emerson Reynolds, professor of chemistry, has been elected president of the Society of Chemical Industry for the ensuing year.

An Insanitary Court.

The Lord Chief Justice adjourned all business in the Crown Court at Armagh last week owing to its insanitary condition. His lordship remarked that he and several members of the bar were ill, and that one man had been stricken with typhoid fever. When he accepted the position of Chief Justice of Ireland, it was not on condition that he would have to administer justice in a breeze of sewer gas.

A Case of Leprosy near Lisburn.

At a meeting of the Lisburn Board of Guardians, held on June 7th, a letter was read from the Local Government Board in reference to a man, the subject of leprosy, who had applied for and had been granted out-door relief. In this communication the Board advise that the case should be treated, as far as possible, in isolation. They explain that it is not an infectious disease in the sense of being communicated to others through the exhalations of the sufferer, and, although contagious, it is generally considered, they point out, that very intimate contact with the person of the patient is necessary for the communication of the disease. The clerk of the Board of Guardians was directed to enclose this letter to the dispensary medical man of the district, Hillsborough, in which the leper resides. It appears that the disease was contracted in Rangoon, British Burmah, where the man was born and resided for ten years. The man is a very well-marked example of the disease; he has numerous tubercles, anæsthetic patches, and the bacilli characteristic of the disease were shown at a meeting of the Ulster Medical Society by Drs. Calwell and Killen, who gave a very full account of his state.

The Ulster Medical Society.

The annual meeting of the Ulster Medical Society was held on Wednesday, July 8th, Dr. M'Connell in the chair, when the secretary's report and treasurer's statement were submitted and passed. The following office-bearers were elected for the ensuing session:—President: Dr. O'Neill. Vice-Presidents: Dr. Calwell and Dr. Nelson. Secretary: Dr. M'Caw. Treasurer: Dr. Kevin. Librarian: Dr. Cecil Shaw. Pathological Secretaries: Dr. John Campbell and Dr. W. B. McQuitty. Council: Dr. Byers, Dr. J. A. Lindsay, Dr. Mc Kisack, Professor Sinclair, Dr. Ferguson, and Professor Dill.

The Belfast Lunatic Asylum.

On July 13th, at a meeting of the governors, a sub-committee which had been appointed to examine into the condition of the asylum sent in their report, in which they state that they found the house clean, the patients comfortable, and, although the asylum was very crowded, the health of the inmates was good. They recommended that the necessary steps should be taken to have erected a detached hospital for fifty beds, in which those suffering from physical as well as mental diseases could be placed, as, if an epidemic occurred, great responsibility would be thrown on the governors. There seems to have arisen some difficulty in reference to the building of a new asylum at Antrim, the corporation of the City of Belfast thinking an Act of Parliament would be necessary first; but the board of governors decided that the plans for the erection of the new asylum should be prepared without waiting for the legal power needed for the separation between the city and the county, so that a delay of at least eight months might be avoided.

The death is reported of Surgeon-Major J. Sadleir Ridings, late Madras Medical Service, which took place at Belgrave-square, Monkstown, co. Dublin, on the 12th inst.

July 14th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

A New Teratological Curiosity.

RECENT visitors to Paris must have noticed, amongst other highly artistic and highly coloured mural decorations from the brush of Chéret, a sensational poster depicting a freak of nature reminding us forcibly of the whilom popular Two-headed Nightingale. These phenomenal beings—for we have to deal with a double personality—are on view twice daily at the Gaîté Theatre, and as the aberration of development resulting in the birth of the twin and very

much attached sisters, Rosa-Josepha Blazek, possesses real scientific interest, I make no apology for occupying a portion of your space with a summary of an article on the subject from the pen of Dr. Marcel Baudouin, which appears in the current number of the *Semaine Médicale*. Thanks to information furnished by Dr. Isch-Wall, who has enjoyed the exceptional privilege of a detailed examination of the young ladies, Dr. Baudouin is enabled to enlighten us on their physical conformation. The twin sisters were born thirteen years and a half ago at Skreychov, in Bohemia, the labour, at which the village midwife officiated, presenting no particular difficulty. The mother, aged twenty-two years, had given birth two years previously to a girl of normal physique. The sisters are of very fair complexion, small for their age, resemble each other closely, and, when seen seated side by side, hardly convey the impression that they are united by so intimate an anatomical bond. Directly, however, one sister moves, the other is constrained to follow. The trunks are not parallel, the axes of the spinal columns forming an angle the apex of which is situated below at the junction of the pelves. Each trunk is twisted on itself at an angle of about 45°, so as to turn the faces forwards and to incline the heads somewhat inwards. Viewed in profile, it is at once seen that the sisters are united by the posterior wall of the pelves, just as were Hélène-Judith, a description of whom is met with in old works on teratology. The apex of the angle or V formed by the conjunction of the trunks is constituted by the intimate soldering, in the median line, of the sacral and coccygeal regions, and, laterally, of the four buttocks. The composite pelvis is abnormally large, composed as it is of four ossa iliaca, from which spring four well-formed lower extremities. Below the sacral junction, between the four buttocks, in the quadrilateral and dome-like space bounded by the four thighs, is found a region the description of which is of special interest. At first view, one would be inclined to believe that the space contained only azygos parts—viz., one urethra, one vulva, and one anus. There is, in effect, only a single urethral orifice, from which urine has been seen to issue. But as no sound has ever been introduced through this opening, the existence of two distinct bladders can only be inferred from the fact that the desire to micturate is not synchronous in the two sisters. Immediately anterior to the urethra is situated a single fairly well developed clitoris. From either side of this organ is directed from before backwards a rudimentary labium minus. Encircling all these parts is a nearly oval collar, representing two labia majora, which limit a single vulva. This vulva contains two vaginæ, distinctly separated from each other by a complete partition, the entrance to each vagina being guarded by a crescent-shaped hymen. Between the two vaginæ and the single anus, situated at a short distance behind, is a frail perineum. The rectum is probably single up to a certain height (no rectal examination was allowed), for the desire to defecate is synchronous. But it is certain that there exist two large intestines. The anus, clitoris, and urethra are situated in the median line corresponding with the antero-posterior diameter of the vault formed by the sacro-gluteal junction. It will be remembered that Pancoast, who attended Millie-Christine, the two-headed Nightingale, for a vulvar abscess, found that this *pygopage* was endowed with two clitorides and only one vagina (Ramsbotham, on the contrary, maintained that there were two vaginæ), and that in Hélène-Judith the vagina and rectum, single below, bifurcated at a little distance higher up. Breisky, who in 1878 was Professor at the German Medical Faculty of Prague, and who examined Rosa-Josepha when the latter were only six months old, states that he then noticed a remarkable asymmetry of the crania, very plainly appreciated when the heads were viewed from above and behind. The foregoing details will have prepared your readers for the information that in Rosa-Josepha we have to deal with two perfectly distinct psychical personalities. The only parts that can be considered common property are the lower portions of the genito-urinary apparatus (urethra, clitoris, and vulva), the rectum, and perchance the lower end of the vertebral canal. That they are independent beings is evidenced by the fact that one sister can sleep while the other remains awake; one can occupy herself at a task that does not interest the other; one likes beer, the other wine; one is very fond of salad, which the other dislikes, &c. Moreover, one sister may be thirsty without the other experiencing any such sensation. The radial pulses do not beat synchronously. In Millie-Christine, Paul Bert discovered that a stimulus brought to bear on the lower extremities of one twin was perceived by the other. It was hence concluded that the cauda equinæ were united. In the case of Rosa-Josepha, the nervous union must be of less extent, for the zone of common sensibility to afferent impressions is limited to a cutaneous space corresponding to the transverse mass situated between the two pelves. The movements of this conjoined twin are free and graceful enough. When one sister walks, her companion is not obliged to follow backwards. Generally, as in the case of Millie-Christine, the two inner feet advance together, to be followed by the synchronous movement of the two external ones. Either sister can walk while supporting the weight of the other. In order to accomplish this feat it suffices for the bearer to incline her body anteriorly, while the other one, having lifted up her feet from the ground, reclines on her sister's loins. They have been seen to progress on only two and three legs respectively, mount the stairs, dance, &c. In waltzing they are very proficient. One had the croup when twelve months old without communicating the disease to her fellow. Soon afterwards the non-croupous twin was seized with convulsions, the other remaining unaffected. How can we explain the existence of such a phenomenon as Rosa-Josepha? Dareste has shown that the explanation lies in the accidental fusion of two germs developed in a single ovum, and enclosed in a single chorion. The two germs, represented at the early period of development by their primitive streaks, must be inclined the one towards the other, so as to form a V, the union occurring at the future sacral region. In the case of Rosa-Josepha this union must have taken place towards the end of the first fortnight after fecundation, when the medullary canal had not quite closed posteriorly. The single urethra, clitoris, vulva, and rectum are easily explicable on this theory; but, as the allantois is already formed, these conjoined twins probably always possess two large intestines, two bladders, and two uteri. These interesting young ladies will, doubtless, be in due course exhibited in England.

Paris, July 15th.

THE SERVICES.

Staff Surgeon Gerard James Irvine has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated June 14th, 1891).

ARMY MEDICAL STAFF.—Surgeon C. E. Faunce, of the Medical Staff, has been attached to the Coldstream Guards for duty, vice Surgeon Carte, M.D., promoted Surgeon-Major in the Grenadier Guards.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Charles Pye Oliver, 5th Division Volunteer Medical Staff Corps, to be Surgeon, ranking as Captain, and Surgeon Herbert Frederic Henry Barham, 5th Division Volunteer Medical Staff Corps, to be Surgeon, ranking as Captain (both dated July 15th, 1891).

INDIAN MEDICAL SERVICE.—*Madras:* Surgeons to be Surgeons-Major (dated March 31st, 1891): William Frederick Thomas, Henry George Luther Wortabet, M.D., Edulji Palanji Frenchman, Richard James, Sarkies Carrapiet Sarkies, and David Stuart Erskine Bain.—*Bombay:* Surgeon-Major George Bainbridge to be Brigade Surgeon (dated April 30th, 1891).—The Queen has approved of the retirement of the undermentioned Officers from the Service:—Brigade Surgeon William Moir, Bengal Medical Establishment (dated April 1st, 1891); Surgeon-Major Henry George Hall, Madras Medical Establishment (dated May 1st, 1891). The Queen has approved of the date of retirement of Brigade Surgeon William Smyth Fox, Madras Medical Establishment, being altered to May 7th, 1891.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons: Ernest J. Finch, to the *Wildfire* (dated July 9th, 1891); Donald T. Hoskyn, to the *Wallaroo* (dated July 14th, 1891), and for the *Curaçoa*, in lieu of a Staff Surgeon, when recommissioned (undated); and Wm. A. Whitelegge, to the *St. Vincent* (dated July 14th, 1891).

VOLUNTEER CORPS.—*Rifle:* 2nd Volunteer Battalion, the Prince of Wales's (South Lancashire Regiment): Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel

R. M'Nicoll resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated July 11th, 1891).—3rd (Renfrewshire) Volunteer Battalion, the Princess Louise's (Argyle and Sutherland Highlanders): James Strang, M.B, to be Acting Surgeon (dated July 11th, 1891).

Obituary.

WILLIAM HENRY STONE, M.A., M.B. Oxon., F.R.C.P., F.R.C.S.

WILLIAM HENRY STONE, consulting physician to St. Thomas's Hospital, was born in London in the year 1830, his father being at that time rector of Spitalfields. He very early showed a great liking for scientific pursuits, and when quite a boy worked a great deal with the late Dr. Jackson, the inventor of the Jackson microscope. He was educated at the Charterhouse School, at which he greatly distinguished himself; and later went to Oxford, where he took a first class in classics, and afterwards became a scholar of Balliol. In 1854 he joined as a student at St Thomas's Hospital, where he obtained numerous prizes and the treasurer's gold medal for general proficiency. In 1856 he became M.B, and in the same year obtained the membership of the Royal College of Physicians and the Fellowship of the Royal College of Surgeons. He then studied for a time at Paris under Richet, and on returning was appointed medical registrar at St. Thomas's Hospital. He soon resigned this last post in order to take the appointment of inspector to the Board of Health at Trinidad, where he obtained that experience of tropical diseases which enabled him to speak with authority on the subject. In passing, it may be mentioned that he considered the present epidemic influenza to be identical with dengue fever. On returning to London in 1861 he was appointed physician to the Surrey Dispensary and assistant physician to the Brompton Hospital for Consumption, and was also for some time lecturer on Forensic Medicine at St. Thomas's Hospital. In 1868 he was appointed physician to the Clergy Mutual Assurance Society, and on the opening of the new St. Thomas's Hospital he became assistant physician, and later full physician, lecturer on Materia Medica and Therapeutics, and lecturer on Physics. He was made a Fellow of the College of Physicians in 1863, Censor in 1884, and delivered successively the Croonian and Lumleian Lectures and the Harveian Oration; he also was an examiner in materia medica and medicine. Dr. Stone was always especially fond of those branches of physics which relate to music and electricity. He was himself a skilful musician and an energetic member of the Society of "Strolling Players," frequently playing at concerts in different parts of the kingdom, and on various instruments. He delivered many interesting lectures on acoustics and kindred subjects at the Royal Institution and the Royal Academy of Music. He published a Primer on Acoustics and an excellent Text-book on Sound. He contributed many papers on Medical Physics to the St. Thomas's Hospital Reports, among which may be mentioned that on the Physical Basis of Auscultation, and on Pleural Tension, in which he showed the need of an aspirating force for the removal of fluid from the pleura. He also wrote on the Mechanical Adjustments of the Sphygmograph; and his paper on Ægophony, in which he explained the origin of this physical sign, is well known. His electrical researches are perhaps the more valuable; he was the author of many papers read before the British Association and the Society of Telegraph Engineers. His papers on the Use of the Continuous Current in Diabetes, on the Medical Application of Electricity, and on the Electrical Resistance of the Human Body, appeared in the St. Thomas's Hospital Reports. His electrical work was completed by his Lumleian lectures on the Electrical Conditions of the Human Body, published in THE LANCET for 1886, vol. i., p. 730 *et seq.* In these lectures, which were attended by scientific men from all parts of England, he brought our knowledge of the electrical conditions of the body up to a point far in advance of his predecessors, and his results have remained unquestioned since. His medical writings are scanty. He wrote on hysteria and hystero-epilepsy, on some effects of brain disturbance on the handwriting (in which he gave an account of his own illness), and, in conjunction with the actuary, Mr. Wyatt, an important series of reports on the mortality experience of the Clergy Mutual Assurance Society. In the last of these reports, brought out shortly before his death, he maintained that there was no reason to suspect any increase in the prevalence of cancer, and that the hereditary transmission of phthisis was not so frequent as is generally supposed. In the wards his teaching was chiefly on therapeutics. He successfully devoted an immense amount of time and patience to his patients, and spent his mornings in the wards. He was a universal favourite among the students, who always appealed to him in matters affecting their interests, and he took a prominent part in the formation of the Students' Club. As a lecturer, his style was fluent and entertaining; he could talk upon almost any subject with ease. His witty remarks will long be remembered at St. Thomas's Hospital. In 1882 he suffered from serious illness, and after this he never recovered robust health. Last year he retired from his post of physician at St. Thomas's Hospital, and was put upon the consulting staff. About this time he began to suffer from contraction of the visual field and partial loss of colour vision. Three months ago he suddenly became comatose with subsequent aphasia, and was under the care of Mr. Pollard of Ramsgate. Of late he had lost all appetite for food, and died at his house at Wandsworth on Sunday morning, July 5th, from syncope. Dr. Stone attributed the symptoms from which he suffered to a cerebral tumour, but at the necropsy no organic disease was found except atheroma of the aorta.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 8th inst.:—

Anatomy and Physiology.—Joseph Griffiths and J. Gordon Williamson, students of Edinburgh University; Ernest Michels, of Berlin University; A. Sibert Barrow and W. Reynolds Trythall, of Middlesex Hospital; C. Marten Perry, of King's College and Edinburgh University; R. Moorson Wood, of King's College; Roland H. Fletcher, H. Pode Miles, and and J. Inchbald Johnson, of University College; Frederick C. James, A. W. Viner Clarke, and William G. Stone, of St. Thomas's Hospital; J. Patrick O'Hea, Charles J. MacDonald, and Samuel E. Rigg, of St. Bartholomew's Hospital; Henry W. Beach, of Guy's Hospital.

Anatomy only.—S. Seymour Wallis, T. Marshall Nicholson, Frank A. Evison, and J. Wallace Sweetlove, of Guy's Hospital; William Roydon and Morris N. J. Rigby, of St. Bartholomew's Hospital; Michael J. Longinotto, of St. Thomas's Hospital; Arthur H. P. Crosby and Arthur T. Davey, of Middlesex Hospital.

Physiology only.—Gerald S. S. Marshall, of Middlesex Hospital; W. A. Bernhard Smith, of King's College; Alex. M. Cowie, of McGill College, Montreal.

Passed on the 9th inst.:—

Anatomy and Physiology.—Lewis Feaver, George Cawley, William J. Codrington, and Allan Kennington, St. Bartholomew's Hospital; Joseph S. Pearse, John F. W. Waters, and Frederick W. Lewis, of Middlesex Hospital; James H. Bennett, Frederick W. Barrett, Edward P. R. Tregaskis, and James C. Spillane, of London Hospital; John Phillips, of University College; Claude R. Lucas and W. Harland Peake, of Guy's Hospital; William R. Hanbury, of St. Thomas's Hospital; E. V. R. Fooks, of Charing-cross Hospital.

Anatomy only.—Vyner Graham, Wallace Pomeroy, A. Douglas Cowburn, and Savignac B. Stedman, of St. Thomas's Hospital; Thomas Rhind and Palemon Best, of University College; Lewin Bensted, W. Matthews Price, and E. Shelton Roberts, of Guy's Hospital; Toft Basker, of St. Bartholomew's Hospital; Edmund W. Gregor, of Middlesex Hospital; P. L. Watkin-Williams, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; S. Mervyn Meyrick, of St. Mary's Hospital.

Physiology only.—Bertram J. Collyer, of St. Bartholomew's Hospital; Lionel T. Wells, of St. Mary's Hospital.

Passed on the 10th inst.:—

Anatomy and Physiology.—Frank Pershouse, of St. Thomas's Hospital; Robert Ballard, of St. Bartholomew's Hospital; J. Blyth Bayfield, of King's College; L. Constantine Bean, of University College; Wilfred G. Mumford, of Guy's Hospital.

Anatomy only.—L. Addams Williams, Louis J. A. de Gébert, T. H. Pryce Morris, and Hubert Williams, of Middlesex Hospital; J. Sydney Williams, of London Hospital; Archibald J. Campbell and G. Robert Harcourt, of St. Thomas's Hospital; J. Ernest Manlove, W. Edward Lee, and F. Ernest Feilden, of St. Bartholomew's Hospital; Ernest G. Annis, Henry Hewetson, and Arthur J. Mathison, of Guy's Hospital; Reginald W. Lake and A. Minter Watts, of University College; Arthur Barnes, H. Walter Whitley, and William J. Robertson, of Charing-cross Hospital; Ernest Shepherd and John Grech, of St. Mary's Hospital; Alfred W. Austen, of Westminster Hospital.

Physiology only.—William C. Pitt and Robert Serjeant, of Guy's Hospital; Henry W. Armit, Henry A. Andrews, A. Armitage Humphrys, and Herbert C. Wimble, of St. Bartholomew's Hospital;

C. Hubert Ackland, of Charing-cross Hospital; Arthur E. Syme, of Melbourne University and Mr. Cooke's School of Anatomy and Physiology; Alick C. Strand and Hobart J. W. Barlee, of Middlesex Hospital; Barnett Saul, of Charing-cross Hospital and Owen's College, Manchester; Hubert A. Madge and Edgar J. Rowbotham, of Charing-cross Hospital; Samuel E. Price, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; W. Shackfield Newton, of London Hospital; Courtenay C. Parsons, J. Ward Summerhays, J. E. Bishop Wells, and H. J. Kinahan Bamfield, of St. Mary's Hospital; H. Merredith Harrison, of St. Thomas's Hospital.

Passed on the 13th inst.:—

Anatomy and Physiology.—A. Kenward Matthews, Frank Cowan, and Thomas Barrow, of Guy's Hospital; Thomas O. Halliwell and Alfred L. Fuller, of St. Thomas's Hospital; Thomas G. Wakeling, of St. Bartholomew's Hospital; Francis J. Clowes, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; G. Douglas Kettlewell, of London Hospital.

Anatomy only.—E. D. J. O'Malley, of Middlesex Hospital; J. Noakes Hall and Richard D. Evans, of St. Mary's Hospital; F. Vincent Denne, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology; David Evans, of University College; William C. Hutley and A. C. Bazely Casson, St. Bartholomew's Hospital; Ernest R. Badcock, of London Hospital.

Physiology only.—S. Robinson Hallam, of St. Thomas's Hospital; Frank Romer, of St. George's Hospital; Herbert Harrison, of London Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND: CONJOINT SCHEME.—The following have passed the First Professional Examination:—

J. Beaumont, E. J. Bennett, R. Coffey, Thos. Coulon, T. J. Considine, J. J. Cormack, B. Coyle, G. F. Creighton, J. H. Davys, K. Delany, M. Delany, J. Dwyer, J. W. Griffin, J. Halligan, P. Heanen, T. J. Jordan, R. K. Joyce, H. T. Kennedy, E. F. L'Estrange, A. Leventon, James Lynch, D. R. Love, W. Marriott, H. Martin, J. Martin, E. Meeke, P. Morrissey, W. Murphy, C. O'Gorman, J. F. O'Keeffe, E. F. Power, J. E. Shera, R. E. Smith, J. F. Smyth, W. Shatton, M. Walsh, and F. W. Woods.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the First Examination in Medicine of the University:—

D. F. Blanchard, J. Booth, J. Boyd, W. Carroll, R. W. Clements, J. Craig, S. Dowling, T. Downard, R. S. Drought, G. Fitzgerald, L. Forrest, J. Frengley, D. Henry, F. T. Heron, R. Huston, Mortimer Hynes, G. Irvine, R. Kelly, J. Kennedy, T. Kenny, J. Luke, J. McCarthy, J. McHenry, W. McMurty, W. McWilliam, G. Maguire, J. Moag, A. Moore, Arthur Moore, M. Moran, H. Orr, R Patterson, P. Quinn, H. J. Ritchie, J. Roughan, George Smiley, T. Thompson, J. Warwick, Robert Watson, and Clara L. Williams.

The following may present themselves for Honours in the subjects mentioned:—

J. Booth (Botany, Chemistry, and Physics), W. Carroll (Zoology, Chemistry, and Physics), R. Clements (Physics), J. Craig (Botany, Zoology, Chemistry, and Physics), S. Dowling (Zoology), T. Downard (Physics), D. Fitzgerald (Botany, Chemistry, and Physics), L. Forrest (Zoology), J. Frengley (Zoology and Physics), D. Henry (Physics), F. Heron (Zoology and Physics), M. Hynes (Chemistry and Physics), G. Irvine (Zoology), T. Kenny (Physics), T. D. Luke (Botany and Physics), G. Maguire (Botany), Arthur Moore (Physics), H. Orr (Zoology), R. Patterson (Botany, Zoology, and Physics), P. Quinn (Zoology, Chemistry, and Physics), J. A. Roughan (Zoology, Chemistry, and Physics), George Smiley (Physics), T. Thompson (Botany and Zoology), J. Warwick (Botany), Robt. Watson (Botany), and Clara L. Williams (Zoology).

UNIVERSITY OF DUBLIN.—The following Scholarships have been awarded:—Anatomy and Institutes of Medicine: Andrew F. Dixon. Chemistry, Physics, Botany, and Comparative Anatomy: William Haughton. These Scholarships are value for £20 a year, tenable for two years.

THE INTERNATIONAL CONGRESS OF HYGIENE.—The Prince of Wales has approved of the appointment of the Nizam of Hyderabad, the Maharajah of Jeypore, and the Maharajah of Cooch Behar as vice-presidents of the International Congress of Hygiene and Demography to be held in London on Aug. 10th.—The Maharajah of Cooch Behar, hon. A.D.C. to the Prince of Wales, has subscribed £50. The ruler of Jeypore also has contributed £100 towards the expenses of the Congress.

SCHOOLS OF SURGERY: ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following prizes have been awarded for the summer session:—Barker Anatomical Prize of 20 guineas: Isabel Harper. Practical Surgery: P. P. Kilkelly, First Prize and Gold Medal; H. Jones, Second Prize and Silver Medal. Practical Pharmacy: F. W. Woods, First Prize and Medal; W. A. Croly, Second Prize. Materia Medica: F. J. Mathews, First Prize and Medal; H. R. Sweeny, Second Prize. Practical Histology: H. R. Sweeny, First Prize and Medal; M. J. O'Brien, Second Prize. Practical Chemistry: R. C. Hodgson, First Prize and Medal; W. Stratton, Second Prize. Forensic Medicine: M. Coghlan, First Prize and Medal; T. Poriotte, Second Prize.

THE READING PATHOLOGICAL SOCIETY celebrated its jubilee on Wednesday last, the 15th inst.

A CENTENARIAN.—It is stated that a woman named Cassell, residing in Rostrevor, co. Down, has reached the age of 113 years, and that this age can be corroborated.

NEW HOSPITAL AT MONTROSE ASYLUM.—Last week the managers of the Montrose Asylum and Infirmary Board, in the presence of a large and influential assembly, formally inaugurated the Asylum Hospital at Sunnyside. The building has cost about £18,000.

CONVALESCENT HOSPITAL, NOTTINGHAM.—By the munificence of Colonel Seely the board of the Nottingham General Hospital has established a convalescent hospital for patients at New Haven, Woodthorpe Drive, Sherwood, and on the 1st inst. Mrs. Seely, in the presence of a large and influential assemblage, performed the opening ceremony.

OPEN SPACES.—*The Metropolis:*—The disused burial-ground adjoining St. Giles's Church was last week opened for the public use. It has been adapted as a recreation ground by the St. Giles's Board of Works, at an outlay of £300.—*Leeds:* The Mayor of Leeds (Mr. Alderman Cooke) formally opened, on Saturday, the new public park and recreation ground for the district of Holbeck and West Hunslet, which will be known as the Cross Flatts Park, and comprises rather more than forty-one acres. The borough now possesses eighteen public grounds for recreative purposes.

GUY'S HOSPITAL PRIZE DAY.—Mr. J. A. Shaw-Stewart presided last week at the annual distribution of prizes and medals to the students of Guy's Hospital Medical School. The report read by Dr. Perry (Dean of the School) was of a most satisfactory character. Mr. J. A. Shaw-Stewart then proceeded to distribute the prizes and medals, which were awarded as follows:—The treasurer's gold medal for Clinical Medicine, Mr. John Henry Bryant, Ilminster, who also took the treasurer's gold medal for Clinical Surgery and the Beaney prize for Pathology. The Gurney-Hoare prize for Clinical Study, Mr. Arthur Stanley Wohlmann, Hertford; the Golding-Bird prize and gold medal, Mr. Alfred Theodore Rake, Fordingbridge; and the Michael Harris prize for Anatomy, Mr. Guy Eugene Manning, Hammersmith. The open scholarships in Arts prize, value 100 guineas, was taken by Mr. Henry Percival Ferraby, of Bedford; whilst Mr. Francis James Steward, of Old Charlton, carried off the open scholarships in Science prize, value 125 guineas. The first year's students' prize (1890) of £50 was awarded to Mr. Arthur Henry Leete, of Wellingborough. A vote of thanks to Mr. Shaw-Stewart, proposed by Mr. E. H. Lushington (treasurer of the hospital) concluded the proceedings. The wards of the hospital, museums, school buildings, college, and chapel, were thrown open for the inspection of the company.

PHYSICAL TRAINING DEMONSTRATION.—A demonstration of gymnastics &c. took place on Wednesday last at Hampstead Physical Training College, Broadhurst Gardens, Finchley-road. This College was established in 1883 by Madame Bergman Osterberg, the present principal, and late of the Royal Institute, Stockholm, to train students according to Ling's Swedish system to become teachers of physical exercise. The course extends for a period of eighteen months, and includes theoretical and practical training in anatomy, physiology, and hygiene, as well as daily physical exercises, fencing, swimming, &c. Such a demonstration is quite unique in this country, as formerly teachers of physical training required to go to Sweden to get so complete a curriculum. It consisted of female students of the College who have completed their course, and most of them have already been appointed to schools or colleges as teachers of physical education, and showed how they are trained to give instruction to pupils; several of them gave short lectures on anatomical physiological, and hygienic subjects in order to show the scientific basis of the movements given to their pupils. Very severe gymnastic exercises were exhibited by the students; fencing and swimming demonstrations were also given. There was a large number of ladies and gentlemen present, including Sir Edward Sieveking, Mrs. Garrett Anderson, Dr. A. Wallace, Dr. Wilberforce Smith, and others interested in physical development of the young.

DR. WILLIAM FINDLAY has gained the Thompson Travelling Scholarship of Aberdeen University.

PRESENTATION.—Mr. A. L. Peacock, M.R.C.S., of Bank-street, Lincoln, has been presented by the members of the Lincoln Medical Society with a handsome clock in commemoration of his silver wedding and as a mark of esteem.

A GIFT TO BOOTLE.—The Earl of Derby has presented to the corporation twenty-two acres and a half of land for the purposes of a public park. It is situated on the north-east side of Breezehill and Fornhill-road, on the boundary of the borough. In addition, his lordship has offered to sell to the corporation, on advantageous conditions, twelve acres of land surrounding the proposed park.

COTTAGE HOSPITAL, ROYSTON.—This institution, which was opened in 1870, maintains its efficiency. The number of patients treated during the past year was about the average. The financial statement shows a small deficit, and, pending the receipt of the new subscriptions, the committee had borrowed the money required for current expenses from the original building fund.

CAVENDISH COLLEGE, CAMBRIDGE.—The following candidates for the Open Scholarship Examination recently held were recommended for election to scholarships:—J. H. Woolston, Wellingborough School, £50; A. E. Thorne, Rossall School, £40; E. H. Vines, South-Eastern College, Ramsgate, £30; and M. W. Shutte, Merchant Taylors' School, £30.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of this fund, held on the 14th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £70 was distributed among the several applicants. A donation of £5 was also received, which is a welcome sign that the medical officers of the Navy are beginning to take an interest in the prosperity of a fund peculiarly their own.

GRAVESEND HOSPITAL.—The annual report for the past year, just issued, shows the continued and uninterrupted increase in the sphere of efficiency and usefulness of this hospital. The year's work showed a considerable addition on the previous year in the in-patients' department, whilst the out-patients numbered no less than 1200 more, the total treated being 4979—a number largely in excess of any previous record, attributed partly to the casualties being over 2000. During the year 145 operations had been performed, and anæsthetics were administered 137 times. The cash statement showed a balance in hand of £163.

THE CHOLERA AT KURNOOL.—It is curious as well as instructive to compare the number of cases and number of deaths in the town and district of Kurnool. In the town there were 140 people attacked, 57 per cent. of which ended fatally. In one place in the district there were 150 cases, and only forty-seven deaths—i.e., 30 per cent. The explanation of this difference, people say, is to be found in the fact that while in Kurnool the natives would not, as a rule, take English medicines, in the district they were only too anxious to do so. This is the opposite of what most people would have expected, as townspeople are supposed to be better educated than the villagers.

MEDICAL NOTES IN PARLIAMENT.

Lunacy Bill.

IN the House of Lords on Monday last the Lord Chancellor introduced a Bill, the object of which is to amend the Lunacy Act of 1890 in matters relating to local government and pauper lunatics, and to propose certain changes in the Act relative to private lunatics. It deals with questions raised as to classification, and provides that each pauper lunatic is to be classified as a pauper until it is ascertained that the patient is entitled to be classified as a private patient. The order of a justice will be unnecessary for the detention of the lunatic in a workhouse, a clause which relieves the Medical Superintendent of the Metropolitan Asylums from the necessity of certifying that the accommodation is sufficient. No lunatic would be admitted unless the accommodation were sufficient. The regulations of a lunatic hospital can be altered subject to the approval of the Secretary of State. To meet the difficulties connected with the certification of private lunatics, the jurisdiction of the judicial authority is enlarged. He is empowered to exercise his function even if he should not have jurisdiction in the place where the lunatic or alleged lunatic is; and, further, he can transfer a petition to some other judicial authority for certification, and any order made by a justice not specially appointed is to be valid if approved by the judicial authority.

On Tuesday, 14th inst., the Lord Chancellor, in moving the second reading of the Bill, described some of its objects. The Bill was read a second time.

Influenza.

In reply to Mr. Vincent, Mr. Ritchie, the President of the Local Government Board, said that further inquiries were being carried on by the medical staff of the Local Government Board, and stated that he was advised that we must mainly rely upon clinical and pathological observation for the increase of our knowledge concerning the disease.

Insanitary Conditions on Board Vessels.

Dr. Tanner moved a reduction of the vote for the Board of Trade, in order to call attention to the position of the surgeons on the ocean liners. He said that many of these ships were sent to sea without sufficient accommodation for their steerage passengers, and many of the men had to crowd together in a most disgusting way. Some years ago the Board of Trade had issued a circular calling upon the surgeons to report any cases of overcrowding or of insanitary conditions; but no complaints had been made. This was because it was as much as the medical officer's post was worth to make any complaint. He knew from his own personal knowledge that it was absolutely out of these officers' power to remedy any defect. In the present day all space in these passenger vessels was of the greatest value, and this made the companies extremely covetous of any space which might be allotted for sanitary purposes. He would ask the right hon. gentleman to recollect what had been done with regard to the Australian vessels. Medical men were put on board those ships who were independent, and who were responsible only to the Board of Trade. But the position of medical men on board the steamers to America was not such as to enable them to discharge the duties required of them by the Board of Trade. Vessels proceeding from Liverpool to America were inspected by Board of Trade officials at Liverpool and Queenstown. Nothing could be more ridiculous than these inspections. The medical men stood in the gangway and looked at the emigrants as they entered the ship. How could anyone detect in such circumstances a case of zymotic disease? It was frequently found, shortly after a ship had put to sea, that there was an outbreak of one of these diseases. As a matter of fact, it was ascertained, on making inquiries on the American side, that a great mass of disease was frequently imported into America in consequence of the sanitary regulations of the Board of Trade not being sufficient. Again, the regulations of the Board of Trade with respect to hospitals were often disregarded. The hospitals were made use of for all sorts of purposes. It frequently happened that a purser, a doctor, or an engineer gave up his cabin to a passenger and then found other quarters for himself in the hospital. He knew of one case when the hospital was turned into a sort of mortuary. This was the way in which the regulations of the Board of Trade were treated. If the medical man reported on the subject, he got what was technically called the "sack" and lost his situation.—Sir M. Hicks-Beach said that when the hon. member brought this matter forward at considerable length in 1888, he answered him to this effect—that he was anxious to put down any evils of the kind to which he alluded, and if he would furnish any detailed cases where those evils had occurred, then he would have them thoroughly investigated, and the persons who might be found guilty punished. There must be some amount of hurry in the inspection of emigrant ships on leaving port, but he believed, after doing the very best in his power to make himself acquainted with the facts, that the medical officers entrusted with this duty performed it in an able, zealous, and competent manner. There might be individual cases—he remembered one—where an emigrant was permitted to take passage who ought not to have been allowed to go on the vessel, but such cases were very rare indeed. The proposal that the position of medical officers should be independent of the shipowners, and the suggestion with reference to vessels on which there was no medical officer on board, could not be carried out without legislation; he had no power to make any regulations which would deal with the matter at all.

Impure Lymph.

In the House of Commons on Wednesday, 15th inst., Mr. Morton called attention to the use of improper lymph by vaccination officers. In a recent case Mrs. Cooke was summoned because she objected to having vaccine lymph taken from her child. The doctor was going to vaccinate the children waiting in the room with that lymph, when it would be impossible to have the lymph examined in any way whatever, and immediately afterwards the lymph used was taken from an unhealthy child. The Medical Department of the Local Government Board ought to take care that no vaccine matter was used which had not been properly examined.—The Chairman said he did not see how the hon. member connected this question with the vote in connexion with the Local Government Board.—Mr. Morton understood that this was a matter which was under the charge of the Local Government Board.—The Chairman said that if the allegation was that the medical officer drew the lymph from the vaccination establishment of the Local Government Board, the hon. member would be in order. But that was not the case.—Mr. Morton observed that what he wanted was that the Local Government Board should secure the use of proper lymph.

Medical Men and the Lunacy Commission.

On the vote to complete the sum of £13,944 for the Lunacy Commission, Dr. Clark said that there were six Lunacy Commissioners for England, each with a salary of £1500 a year, while there were two Commissioners in Scotland, each with a salary of £1000 a year. There was nothing, in his judgment, to justify this disparity in the treatment of the Lunacy Commissioners in Scotland and England, and as a protest he moved the reduction of the vote by £2000. Dr. Farquharson said that this was one of the many cases in which departments in Scotland, which worked well and efficiently, were underpaid as compared with the same departments in England. He was in favour of medical men being chosen for this work.—Dr. Tanner supported the amendment. There was no desire to deprive the present Commissioners of their offices, but all future appointments should be of medical men.—Mr. Jackson said that the hon. gentleman objected that the Scotch Commissioners were paid too little, and yet he was moving a reduction in the salaries of the English Commissioners; but, whether regard were had to population or to the work to be done, the hon. gentleman would find

that the cost of the Scotch department was out of all proportion to the cost of the English department.

Full-time Workers under the Factory Acts.

On Thursday Mr. Mundella asked the Home Secretary whether he had considered the desirability of raising the educational standard for full-time workers under the Factories and Workshops Act, 1878; and if so, what standard of the Code he had fixed upon, and when would it come into operation?—Mr. Matthews said that the question of raising the educational standard for full-time workers in factories and workshops only, as distinguished from other employments, was a question which could not be decided without careful inquiry into the circumstances of various industries, and conference with the Education Department. He would take an early opportunity of conferring with the Department, but he was unable at present to state what course would be pursued.

Compulsory Vaccination in India.

Mr. Summers asked the Under Secretary of State for India whether he could inform the House to what districts in India compulsory vaccination extends, whether municipal bodies and other local authorities have power to introduce compulsory vaccination within their respective local limits, whether the compulsory vaccination system is uniform, or whether its provisions differ in different localities, whether any provision exists in India analogous to Section 31 of the English Act of 1867 as regards cumulative penalties, and whether he can state the number of prosecutions and the number of imprisonments for non-vaccination that have taken place in recent years.—Sir John Gorst replied that the laws relating to vaccination were in force in four districts of Bengal and 183 municipal cities and towns in different provinces of India. The extension of the compulsory law was effected by the local government, and not by the municipality, but generally on the initiative of the different municipal authorities. There was a provision in the Indian statutes similar to that of Section 31 of the English Act of 1867. He could not state how many prosecutions and imprisonments there had been, but, so far as the Secretary of State was aware, there had never been any cases of imprisonment.

The Ventilation of the House of Commons.

The Select Committee on the Ventilation of the House of Commons will, it is expected, examine one more witness and then proceed to the consideration of their report. It is believed that they will recommend an enlargement of the air inlets, and will also make a number of suggestions with a view to improving the general atmosphere of the committee rooms. The method of ventilation adopted in the lobby is also open to considerable improvement, the system of introducing cold air through gratings in the floor being a constant source of danger to members and attendants in hot weather.

THE METROPOLITAN HOSPITALS INQUIRY.

THE Select Committee of the House of Lords on the Metropolitan Hospitals met again on Monday, Earl Sandhurst presiding.

Mr. Rathbone, M.P., examined by the Chairman, said he was a member of the Executive Committee of the Liverpool Infirmary, and President of the Liverpool Training School and Home for Nurses. He had been in the former position for thirty years. During the past twenty-five or thirty years there had been a great improvement in hospitals and the work they did. Thirty years ago there were only two hospitals in England that had a proper system of training nurses—one was St. Thomas's, who trained them for hospitals only, and the other was King's College, where, under the charge of the St. John's Sisters, there was a very good training school for private nurses. In Liverpool they had a general committee for the management of the hospital, which met once a fortnight. At each meeting a member was appointed to visit for a month, so that they always had two visitors at a time. The visitors were expected to visit twice a week the whole of the hospital, and to record the results of their visits, and any recommendations they had to make, in the visitors' book. The medical staff were entirely responsible for the medical treatment of their patients. They had a matron who managed and controlled the entire female staff, and had charge of the stores. Under the matron were a housekeeper and two assistant superintendents. The matron had power to dismiss probationers without reference to the committee, but in the case of nurses and sisters she made a report to the committee. During his thirty years' experience of three large hospitals he had not known a case of wrongful dismissal, but he had often been struck with the fact that they did not get rid of nurses so frequently as they ought to do. All his experience went to prove that hospital committees should extend a large measure of confidence to their matrons. If they could not trust their matrons, the sooner they got rid of them the better.—The Chairman: How do you know the matron is to be trusted?—Our visitors go round twice a week, and are sure to hear of any complaints. If the nurses are dissatisfied with their treatment by the matron, they can complain to the visitors in the same way as the patients do.—The Earl of Kimberley: You have a perfect belief in a benevolent despotism?—Yes, I have; and I think I have done as much as most people for the improvement of the condition and comfort of the nurses; but I think there is a great deal of nonsense talked about this matter. People talk as if the hospitals were there for the amusement and pleasure of the nurses. Nursing has become fashionable. That is good in certain ways, but it is very dangerous in others. We get a strange set of applicants—of young ladies who think, after they have passed their probation, that they should have more liberty in a hospital than in their own homes. In this way we have a great deal more trouble than before in keeping order.—The Chairman: Have you never considered whether it would not be wise to give the power of suspension to the matron, and retain the power of dismissal for the committee?—I say with confidence that it would be a mere pretence to say that at the present moment the management of these hospitals is imperfectly performed because the central authority has too much and not too little to do, and that the effect of giving it more to do will be that the work will be scamped even more than it is now.—The Chairman: If the work is scamped, does not that point to an inefficient committee?—You must get the best committee you can. If you wish to succeed in hospital management, you must endeavour to train your officials in the best possible way, and, having done so, extend to them a large measure of confidence.—Lord Cathcart: How would you like a committee of strong-minded ladies to assist your matron?—I am afraid I should not.—Lord Cathcart: And why?—Because it would interfere with her responsibility. I think a committee of ladies is useful, very often to assist, but not to interfere.

The Rev. Nathaniel Bromley, on behalf of King's College Hospital, made certain corrections and explanations with reference to the evidence given by Mr. Burdett. The cost per occupied bed, he said, had amounted on the average during the three years 1888-89-90 to £93 16*s.* Mr. Burdett, in making his calculation, which brought out a cost of £120 14*s.* 1*d.*, had included an extraordinary expenditure of £9000 spent on altering the buildings.—Lord Thring: What you charge Dr. Burdett with is with saying that he charges against you in the three years that he takes so much of an extraordinary expenditure instead of throwing it over a greater number of years?—Yes; and having had his attention called to it beforehand. I wish also to call your attention to another statement of Mr. Burdett's, in answer to the next question on the same page. He says, "Now, taking the London Hospital, the cost per bed occupied for provisions is £17 1*s.* 7*d.*; at King's College Hospital it is £26 17*s.* 8*d.*, a difference of £10." Now I have carefully gone into the three years and I find that our average is £16 12*s.* 9*d.*, and not £26; and I can only account for Mr. Burdett saying that it is £26 by the fact that he may have added on the board of the nurses; but he has not done so with regard to the London Hospital.—The Chairman: Do you wish to contradict anything about the price of the alcohol in the next answer?—No, that is a very small question. And with regard to the domestic expenses he puts us down at £25 odd as against £10 odd at the London. But then the London has an enormous laundry, and they do all their washing themselves. We pay £1000 a year for washing, and you will see of course that in the items which Mr. Burdett has put down there is no such item as that appearing in his list. Then, on the other hand, the wages and salaries at the London (I do not wish to disparage the great work of the London Hospital, but I only want to justify ourselves in comparison) is put as about equal with King's College Hospital; but they have 630 odd beds to divide it between, whereas we have only 180; so that King's College Hospital compares very favourably indeed.

The Committee then adjourned.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on July 14th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	174	61	1	45	..	281	442
North-Western Hospital	100	37	..	19	..	156	443
Western ,,	121	22	..	9	1	153	224
South-Western ,,	142	15	..	12	1	170	340
South-Eastern ,,	138	8	..	14	2	162	462
Northern ,,	156	13	..	..	..	169	480
Totals	831	156	1	99	4	1091	2391

SMALL-POX.—*Atlas* hospital ship, 2.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLDEN, JOHN H., M.R.C.S., has been reappointed Medical Officer of Health for Shirley.

BADCOCK, J. H., L.R.C.P. Lond., M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

BAKER, A. E., L.R.C.P. Lond., M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

BRIGSTOCKE, C. A., M.R.C.S., has been appointed Medical Officer of Health for the Haverfordwest Urban Sanitary District of the Haverfordwest Union, vice W. John, resigned.

BURY, GEO., L.R.C.P. Edin., M.R.C.S., has been appointed Resident Surgeon to the North Cambridgeshire Hospital.

BUTCHER, J. O., L.D.S. R.C.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

COWIE, H. G., M.B., C.M. Aberd., has been appointed Medical Officer for the Eastern District of the Parish of Macduff, Banffshire.

FAWCITT, T. J., M.R.C.S., has been appointed Medical Officer for the Greatham District of the Hartlepool Union.

FLETCHER, GEO., M.D., Cantab., M.R.C.S., has been appointed Medical Officer for the Highgate District of the Edmonton Union.

GORDON, JOHN, M.D., C.M. Aberd., has been appointed Medical Officer to the Sickness and Accident Assurance Association, Aberdeen.

HARDY, C. M., M.B., B.S. Durh., has been reappointed Medical Officer for the Heighington District of the Darlington Union.

HARRIS, P. T., M.R.C.S., L.S.A., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

HART, F. J. LORIMER, M.B., C.M. Edin., has been appointed Honorary Assistant Surgeon to the Home and Infirmary for Sick Children and South London Dispensary for Women, Lower Sydenham, vice Roper, deceased.

HASLAM, WILLIAM F., F.R.C.S., has been appointed Consulting Surgeon to the Hammerwich District and Cottage Hospital, near Walsall, vice T. H. Bartleet, deceased.

HICKMAN, H. V., L.R.C.P. Lond., M.R.C.S., has been reappointed Ophthalmic Assistant to Guy's Hospital.

HUNT, ROBT., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer for the Third District of the Blackburn Union.

HUNTER, E. J., L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for Alverstoke and the Sanitary District of Gosport.

MCCRACKEN, J. E., L.R.C.S. Irel., has been appointed Assistant Medical Officer, Bootle, vice Williams, deceased.

ROBERTS, FRANCIS HY., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Llandrindod Wells Urban Sanitary District

SANDELL, H. W. A., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Leighton-Buzzard Union District.

SIMPSON, JAS. B., M.B., C.M. Edin., has been reappointed Parochial Medical Officer, Ballachulish.

STEIL, J. W. H., M.B., C.M. Glasg., has been appointed Medical Officer for the Colsterworth District of the Grantham Union, vice Heaven, deceased.

STEPHENSON, F., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Prestwich Urban Sanitary District.

WINDLE, J. D., L.R.C.P. Irel., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Southall-Norwood (Middlesex) Local Government District.

WITHERS, J. S., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Sale Urban Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CHELSEA, BELGRAVE, AND BROMPTON DISPENSARY, 41, Sloane-square, S.W.—Physician.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Anæsthetist. A small honorarium is given.

CHILDREN'S HOSPITAL AND DISPENSARY, Manchester.—Medical Officer. Salary £180 per annum.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester. — Honorary Medical Officer for the Out-district of Rusholme.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon. Salary £100 a year, with furnished rooms and attendance.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL, W.C.—Demonstratorship of Physiology. Honorarium £100 per annum.

CITY ASYLUM, Birmingham.—Resident Clinical Assistant. No salary. Board &c. provided.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. No salary. Board and residence and allowance for washing provided.

DEVON AND EXETER HOSPITAL, Exeter.—Two Resident Pupils.

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing.

GENERAL HOSPITAL, Birmingham.—Three Assistant House Surgeons for six months. No salaries, but residence, board, and washing provided.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Physician. Salary £60 per annum, with board and lodging in the Hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Two Casualty Medical Officers for one year.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30, with board &c.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £70 per annum, with furnished rooms, attendance, and board.

LONDON HOSPITAL, Whitechapel-road, E.—Assistant Physician.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—Two Clinical Assistants for three months.

M, 125, Houndsditch, London, E.—Surgeon for Sailing Vessel for outward passage to Melbourne.

MANCHESTER ROYAL INFIRMARY.—Junior Administrator of Anæsthetics for at least twelve months. Salary £50 per annum.

NEWPORT AND COUNTY INFIRMARY AND DISPENSARY, Newport, Mon.—House Surgeon. Salary £100 per annum, with board and residence (no stimulants).

NOTTINGHAM BOROUGH ASYLUM.—Locum Tenens for a month. Remuneration £2 2s. per week and travelling expenses.

NORFOLK AND NORWICH HOSPITAL. — Assistant to the House Surgeon for six months. Board, lodging, and washing provided.

PARISH OF ST. LEONARD, Shoreditch.—Medical Officer of Health to the Vestry. Salary £200 per annum. (Apply to the Vestry Clerk, Town Hall, Old-street, Shoreditch, E.C.)

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Senior House Surgeon. Salary £100, with apartments and rations (exclusive of wines, spirits, and washing).

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. No salary. Board, lodging, and washing provided.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—Junior House Surgeon for Branch Hospital, Royal Victoria and Albert Docks, E. Salary £50 per annum, with board and residence.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor to take charge of Dissecting-room and hold Classes in Anatomy and Physiology. Salary £100 per annum.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent at the Infirmary at East Dulwich-grove, S.E. Remuneration at the rate of £400 per annum, with unfurnished house, coals, gas, and water. (Apply to Mr. Jones, Clerk's Offices, John-street West, Blackfriars-road, S.E.)

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne.—Demonstrator of Anatomy. Salary £100 per annum.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W. — Junior House Surgeon. Salary £50 per annum, with board and apartments.

Births, Marriages, and Deaths.

BIRTHS.

ALTDORFER.—On July 12th, at St. Anne's-hill, co. Cork, the wife of M. Altdorfer, M.D., of a son.

BENTLEY.—On July 8th, at Somers-place, W., the wife of Dr. Arthur J. M. Bentley, of a daughter.

BONTOR.—On July 10th, at Great Berkhamsted, Herts, the wife of Sidney Algernon Bontor, M.D., of a son.

CANE.—On July 6th, at The Gables, Belvedere, Kent, the wife of Howard Cane, M.D., L.R.C.P. Lond., M.R.C.S., of a son.

CHEYNE.—On July 10th, at 59, Welbeck-street, W., Mrs. Watson Cheyne of a daughter.

FLEMING.—On July 10th, at Denmark House, Holbrook, Ipswich, the wife of Robert Martin Fleming, L.R.C.P., L.R.C.S., of a daughter.

GRANT.—On July 11th, at 17, Finsbury-square, London, E.C., the wife of Dundas Grant, M.A., M.D., F.R.C.S., of a son.

HEWKLEY.—On July 8th, at Lordship-road, Stoke Newington, N., the wife of Frank Hewkley, M.B., F.R.C.S. Eng., of a daughter.

POWELL.—On July 8th, at Devonshire-street, Portland-place, W., the wife of Dr. H. Fitz Gerald Powell of a son.

MARRIAGES.

GAGE-BROWN—SANDLANDS.—On July 15th, at St. Andrew's, Brigstock, by the Revd. J. Gosset Tanner, Vicar of Emmanuel Church, Maida-hill, London, W., assisted by the Revds. W. L. Paige-Cox, L. A. Smith, and W. K. Colyer, Charles Herbert Gage-Brown, M.D., C.M., of 74, Cadogan-place, London, S.W., eldest son of Dr. Chas. Gage-Brown, C.M.G., to Janet Pitcairn, only daughter of Revd. J. P. Sandlands, Vicar of Brigstock.

HEWER—WROUGHTON.—On July 9th, at Highbury, London, Arthur Augustus Hewer, M.B., third son of John Hewer, Esq., M.R.C.S., to Grace Augusta, second daughter of Colonel W. N. Wroughton, Indian Staff Corps.

MERCIER—MCGROW.—On July 7th, at the Parish Church, Chislehurst, Charles Arthur Mercier, M.B., F.R.C.S., of Henrietta-street, Cavendish square, W., to Annie Laura McGrow, late of St. John's, Newfoundland.

PROCTER—ONSLOW.—On July 11th, at St. Patrick's Church, Hove, George Bridgeford Procter, L.R.C.S., L.R.C.P., to Ethel Maud, younger daughter of the Rev. A. L. Onslow, Chaplain (retired), Bombay Presidency.

WILLAN—STRETTON.—On July 14th, at Heston Parish Church, Leonard James Willan, M.R.C.S. Eng., L.S.A., of Ashmore, Heston, to Henrietta, widow of the late Edwin Stretton, Esq., of Highclere, Heston.

WILLEY—TOMBLIN.—On July 8th, at Scaldwell, Northamptonshire, John Mason Willey, M.R.C.S., L.R.C.P., to Anne Elizabeth, youngest daughter of Robert Tomblin, Esq.

DEATHS.

BALLER.—On July 11th, at Earl's court-road, South Kensington, S.W., Joseph Hogg Baller, M.D., in his 86th year.

HALL.—On July 8th, at Thornbreaks, Lancaster, William Hall, Sen., F.R.C.S.E., L.R.C.P. Edin., aged 73.

HALL.—On July 11th, at Aberdeen, John G. Hall, M.D., C.M. Aberd., aged 39.

HARRISON.—On July 10th, at his residence, The Heath, Knutsford, William Philip Harrison, M.D., aged 70.

HILLIARD.—On July 8th, at St. Leonards, Robert Harvey Hilliard, M.D., F.R.C.S. Edin., of Aylesbury, Bucks, in his 53rd year.

LORD.—On July 11th, in his 88th year, Charles Francis James Lord, M.R.C.S., formerly for many years Medical Officer of Health of the Parish of Hampstead.

OLIPHANT.—On the 11th inst., at his residence, High-Cross-street, Leicester, John Oliphant, M.D., aged 48.

RUGG.—On July 12th, suddenly, at the Dispensary, Pontefract, Yorks., William John Rugg, M.R.C.S., L.R.C.P. Lond., Resident Surgeon, younger son of George Philip Rugg, M.D., of Stockwell Villa, Clapham-road, S.W., aged 26.

TOMSON.—On July 12th, at Langley-street, Luton, Beds, Kitt Tomson, M.R.C.S., aged 68.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 16th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 10	30·15	N.	59	56	109	74	54	..	Overcast
,, 11	30·05	W.	63	59	118	75	56	..	Hazy
,, 12	30·09	E.	65	59	92	73	59	..	Overcast
,, 13	30·19	E.	65	61	112	74	61	..	Hazy
,, 14	30·27	E.	62	57	118	71	51	..	Hazy
,, 15	30·09	N.E.	62	58	115	74	56	..	Cloudy
,, 16	29·89	S.W.	60	57	115	75	56	..	Overcast

Medical Diary for the ensuing Week.

Monday, July 20.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ST. PETER'S HOSPITAL FOR STONE.—4 P.M. Mr. Reginald Harrison: Urinary Fistulæ—Gaseous, Fæcal, and Urinous.

Tuesday, July 21.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, July 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 25.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE POISON-MAIDENS OF THE ANCIENT INDIANS.

"PUELLÆ VENEFICÆ," or poison-maidens, constituted a feature peculiar to the ancient Hindoo civilisation—young women, that is to say, who had been inured to the ingestion of poison, and who had power to kill all who came in contact with them. To which of the two main classes into which Susruta divides poisons—the "venena stabilia" (vegetable and mineral) and "venena mobilia" (animal) poisons—these women owed their fatal gift, has not been made clear. Susruta, however, has no doubt of the reality of that gift. Steinschneider, in his "Toxicologische Schriften der Araber bis Ende des xiiiten Jahrhundert" (Toxicological writings of the Arabs up to the close of the 13th century), adduces from the Hawi of Rhazes a passage to the following effect: "Æthiopes quando volunt occidere principes, nutriunt puellas veneno .... et earum saliva periit gallinas et alia animalia, et muscæ fugiunt eas" (When the Æthiopians (Indians) want to kill their chiefs, they feed girls with poison....and the saliva of these is fatal to hens and other animals, and flies shun them). The whole subject forms a curious page in the history of medicine.

C. G. H.—We do not see that our correspondent was to blame, especially as he warned the registrar. The responsibility lay on him to accept it, or inform the coroner. We think the better course in such cases is for the medical attendant to notify the coroner at once, stating the facts, with the intimation that he is or is not prepared to certify the cause of death "to the best of his belief." Since life assurance is so largely undertaken, it is well to think of the contingency of refusal to pay when considering the matter of death certification.

Traveller.—There is a Medical Guide to Berlin, which can be obtained through Messrs. Williams and Norgate, Henrietta-street, Covent-garden.

Sir Joseph Fayrer is thanked.

EXAMINATIONS OF THE APOTHECARIES' SOCIETY.

To the Editors of THE LANCET.

SIRS,—A few weeks ago you kindly allowed me space in your columns for a few lines in regard to the examinations in anatomy of the Apothecaries' Society. I was glad to see at the last examination that the bodies were not only well injected, but were beautiful specimens of dissection. This is a great boon to candidates, and makes the test a very fair one. Perhaps the Society, with its usual consideration for the interests of the students, will make them another small concession—i.e., that they should be required to attend for the oral examination in batches—alphabetically or otherwise—at different times. It does not conduce to the chances of passing of those who feel the necessity of having a clear head to be confined in a room with sixty or seventy others, all engaged in conversation, from 2 P.M. until, in some cases, 7 or 8 P.M., before being examined. This was a very general cause of complaint last time.

I am, Sirs, yours faithfully,

July 14th, 1891. STUDENT.

VIRCHOW TESTIMONIAL FUND.

THE following additional subscriptions to the above fund have been received by the honorary treasurer:—W. S. A. Griffith, M.D., £1 1s.; W. Vawdrey Lush, M.D., £1 1s.; Edgar M. Crookshank, M.B., £1 1s.; John Evans, Treas. R.S., £2 2s.; W. Marcet, M.D., F.R.S., £1 1s.; J. S. Bristowe, M.D., F.R.S., £2 2s.

OXYGEN STORAGE.

A CORRESPONDENT of a French pharmaceutical journal calls attention to the possible danger of keeping oxygen on one's premises, whether merely slightly compressed, as in an indiarubber bag or gasometer such as would be used in a pharmacist's laboratory, or subjected to a pressure of 100 atmospheres or more in one of the steel reservoirs in which oxygen is now sold for pharmaceutical, medical, and scientific purposes. If one of these reservoirs—containing, say, 3000 litres of highly compressed gas—were to be surrounded by fire and to become red hot, the oxygen would probably escape with most disastrous results. Our correspondent asks whether the possession of oxygen should be mentioned to companies insuring premises against fire. The answer suggested is that in the case of a pharmacist who never has more than, say, 200 litres of oxygen at a pressure not above eight atmospheres the risk is no greater from this than from many other substances which he keeps as a matter of course, but that when large quantities are stored the fact ought to be reported, and care taken that the reservoirs are kept at a distance from combustible substances. As insurance companies do not usually specify oxygen storage as a matter to be specially mentioned, and as it is doubtful whether oxygen would not be held to be a "highly combustible" substance, this matter is worthy of the attention of medical men and others who employ it.

Dr. A.—There does not appear to be in the Friendly Societies Act any such provision as our correspondent supposes, or outside the Act any reason for disputing the validity and binding force of the rule in question.

Mr. Geo. Hodson.—We regret that we cannot assist our correspondent.

CORONERS AND MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—On June 18th I was called out some miles into the country to see a boy who had been badly injured from a horse falling upon him. When seen he was suffering greatly from collapse &c., no bones being broken. Upon the following day I went to visit him, and found he had just died. His friends were very averse to an inquest. I wrote a detailed statement of the case from my note-book to the county coroner, and sent it by a constable. No notice whatever was taken of my letter. On June 27th I wrote the following letter to the coroner:—

"SIR,—On June 19th I sent by a constable from Stickland, a village near here, a letter to you with the notification of the death, through an accident, of a boy, Wm. Thos. Sprackling of Stickland. As I have received no answer to my letter, have not again seen the constable, and have received no communication from the boy's friends, I write to ask what action you took in the matter.—Believe me to be your obedient servant, JOHN C. UNDERWOOD, L.R.C.P."

In answer to this letter I received the following:—

"DEAR SIR,—An inquest was held on Sprackling by my deputy, Mr. Dibben. See country papers. Much obliged for your note.—Yours, C. H. W. PARKINSON."

I am, Sirs, yours faithfully,

Blandford, July 13th, 1891. JOHN C. UNDERWOOD.

*** The above correspondence illustrates the rather inconsiderate treatment of a medical man by a coroner. We think our correspondent should have been called as a witness. Yet he did not receive any notice from the coroner till formally applied to, and then no fee.—ED. L.

THE ÆSCULAPIAN MASONIC LODGE.

THE Most Worshipful Grand Master has acceded to the prayer of the petitioners, and granted a warrant for the above lodge. The following are the officers designate:—W. M.: J. Brindley James, M.R.C.S., P.M.; S. W.: F. Ernest Pocock, M.D., P.M. J. W.: Deputy-Inspector-General Belgrave Ninnis, M.D., P.M. P.M. (acting): Lennox Browne, F.R.C.S. Edin., P.M. Secretary: Thomas Dutton, M.D., P.M. Gentlemen desirous of joining the lodge should communicate with the Secretary, Craven House, Northumberland-avenue, W.C.

Mr. R. Jenkings is thanked.

KOCH'S TUBERCULIN.

To the Editors of THE LANCET.

SIRS,—Those in the habit of using Koch's tuberculin will probably have found considerable inconvenience owing to the diluted solutions being so prone to undergo decomposition, necessitating the waste of a good deal of the lymph. I have found that this decomposition may be entirely prevented for an indefinite period by the addition to the diluted solution of a small quantity of acetanilide, which does not in any way impair the efficacy of the fluid, and does not cause that irritation at the seat of injection which carbolic acid produces.

I am, Sirs, yours faithfully,

Putney, July 9th, 1891. EDW. GRÜN.

STERILISED MILK.

A CORRESPONDENT writes in reference to the annotation on sterilised milk which appeared in our issue of July 4th:—

"I should like to point out that Dr. Koplik's conclusion that 'milk will decompose several days after being well steamed' is not correct. There are many ways in which milk may be sterilised. If this process is thoroughly carried out and the air excluded during and after the sterilisation it will keep for any length of time. Milk may be sterilised by boiling or by the agency of steam. If steam is used it may be done in two ways—i.e., either by the continued or the interrupted method; the latter is the more scientific and rational, and if after it has been properly carried out the air is excluded, decomposition is impossible. The interrupted method is based on the fact that the spores of bacteria are more difficult to kill than the bacteria themselves. The milk is therefore put through a preliminary warming, which matures the spores into fully developed bacteria; the milk is then subjected to the influence of steam at a temperature of 115° F. for twenty-five minutes, which destroys the germs of disease and fermentation. If milk is sterilised according to this method, it will keep for almost any period, and further, being sterile, it cannot communicate any disease. It has also this advantage, that the temperature need not be so high or the sterilisation so prolonged, which obviates the other disadvantages, such as destruction of the milk-sugar, and coagulation of the lactalbumen."

Dr. S. C. Zavitziano (Constantinople) will find the information he requires in THE LANCET of last week.

W. should consult his usual medical attendant.

HÆMORRHAGE FROM THE GENITALS OF NEW-BORN FEMALE INFANTS.

To the Editors of THE LANCET.

SIRS,—In your issue of May 16th you give a short paragraph stating that Dr. Eröss of Buda Pesth had met with six cases of hæmorrhage from the genitals of new-born female infants. I wish to state that I have met with three such cases in private practice in this colony. The children were all strong and healthy, and did not appear to suffer in any way from the discharge, which came on about the fourth or fifth day and lasted three days. The colour was dark, and the total quantity, I should say, was about a dessertspoonful. Two of the cases occurred in consecutive confinements of the same mother. I believe these cases are of more frequent occurrence than is generally supposed. I am not aware of any explanation of this hæmorrhage.

I am, Sirs, yours truly,

Seymour, Cape of Good Hope, June 20th, 1891. JNO. CONRY, M.B.

THE QUALIFICATIONS OF AN ASSISTANT PHYSICIAN.

WE have had the following advertisement sent us, which is taken from a Belfast morning paper of July 8th, and which, we learn, has caused no little amusement in medical circles in that city. The only requirements of the Ladies' Committee, it would seem, are "marriage and residence in the immediate neighbourhood of the hospital." Without these, scholarship, university distinctions, and experience are nothing—indeed, quite useless accomplishments in the opinion of the ladies. It is expected, however, that this new and absurd rule, which, curiously enough, bears so hardly on some of the existing staff, will by unanimous consent be abolished as soon as the present appointment is made.

"Belfast Lying-in Hospital, Clifton-street.—The Committee require an Assistant Physician for intern duty; applicants must be married, and reside in the immediate neighbourhood of the Hospital.—Particulars to be obtained from, and application made before 1st October to, the Hon. Sec., Mrs. Deacon, Mossville."

"ELECTROCUTION."

To the Editors of THE LANCET.

SIRS,—In reference to the accounts published in the daily papers about the electrical executions at the Sing Sing prison, New York, U.S.A., I observe with surprise and regret that members of the medical profession took part in it. As the object in society of this body is recognised to be the saving of life, and not the killing of it, I beg to communicate my protest against this American prostitution of a philanthropic profession.

I am, Sirs, yours faithfully,

July, 1891. PHILANDROS.

"CAVEAT EMPTOR."

To the Editors of THE LANCET.

SIRS,—After all that has been said in your columns as to medical practice in France, it is somewhat curious to observe in your advertisement columns that a practice is for disposal in a French watering-place, where a French diploma or licence is not necessary. It seems to me that the prompt purchaser on easy terms would soon repent of his bargain.

I am, Sirs, yours faithfully,

July 11th, 1891. M.D.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Algar, London; Mr. Arrowsmith, Bristol; Mr. Jas. Acton, Toronto; Mr. A. Addison, Glasgow; Messrs. Ash and Sons, London; Messrs. Allen and Hanbury, London; Mr. Adams, London; Mr. Anderson, Stockport; Dr. L. Brunton, London; Mr. Baily, Hampstead; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. C. W. Browne, Smith Field, South Africa; Mr. A. Bedborough, London; Messrs. Bilney and Rowlands, Portsmouth; Mr. Birchall, Liverpool; Messrs. Battle and Co., Paris; Mr. Blackett, London; Mr. Beadles, London; Dr. J. W. Byers, Belfast; Mr. Bigg, Wimpole-street; Messrs. C. Barker and Son, London; Dr. W. S. Cameron, London; Mr. S. E. Crookshank (Pacha), Cairo; Mr. J. E. Cooney, Cambridge; Dr. J. Conry, Cape of Good Hope; Mr. Cooke, London; Mr. Chester; Messrs. Cribier Frères, Orleans; Dr. Clement Dukes, Rugby; Messrs. Dawson and Sons, London; Dr. T. Dutton; Mr. A. Duke, Dublin; Surgeon-Major Stanley L. Dobie, Falmouth; Dr. J. E. Eadison, Leeds; Dr. A. S. Eccles, London; Mr. Edwards, Birmingham; Sir Jos. Fayrer, Carlsbad; Mr. C. J. Fernandez, Banbury; Mr. J. H. Feather, Cambridge; Mrs. C. N. Foyster, London; Mr. E. Grün, Putney; Messrs. Hooper and Batty, London; Dr. Heron, London; Dr. H. Handford, Nottingham; Dr. Hartley, Liscard; Mr. G. Hodson, Acton; Mr. Hornibrook, London; Mr. Howse, London; Mr. Hyde, Buxton; Mr. Hirst, Scarborough; Miss Hooper, London; Dr. Jennings, Coleford; Mr. Vernon Jones, London; Mr. W. H. Kesteven, London; Messrs. Kinahan and Co., London; Messrs. Keene and Ashwell, London; Messrs. Krohne and Sesemann, London; Dr. Lyon, Houghton-le-Spring; Messrs. Lee and Martin, Birmingham; Dr. Leet, Seaforth; Mr. T. C. Lehman, Chipping Sodbury; Mr. Leeson, Harrogate; Dr. Menzies, Brighton; Mr. McMunn, London; Mr. Mosse, London; Messrs. Mitchell and Co., London; Messrs. Mappin Bros., London; Dr. G. Norström, Ragas; Mr. Nichols, St. Ives; Dr. Nevins, Liverpool; Mr. W. G. Nash, Plymouth; Dr. Osburne, Hythe; Mr. Orchard, London; Mr. F. Page, Newcastle-on-Tyne; Dr. Rogman, Gand; Messrs. Richardson and Co., Leicester; Mr. O'Connell Raye, Calcutta; Mr. Robinson, Forest Hill; Dr. Ridge, Enfield; Mr. Roberts, Shoreditch; Dr. R. R. Rentoul, Liverpool; Mr. F. A. Southam, Manchester; Messrs. Squire and Son, London; Mr. Saunders, Manchester; Messrs. Stuart and Clarke, Manchester; Dr. Steel, Switzerland; Messrs. Smith and Son, London; Dr. Shiels, Dunbar; Mr. Sers, London; Mr. Stewart, London; Mr. A. W. Scatliff; Mr. Stallard, Worcester; Mr. Sell, London; Mr. Paul Swayne; Mrs. Turner, Finsbury-park; Mr. Lawson Tait, Birmingham; Dr. W. J. Tyson, Folkestone; Messrs. Thorp and Co., Glossop; Mr. Townsend, Exeter; Dr. G. W. H. Tawse, Aberdeen; Mr. Taaffe, Londonderry; Dr. A. Underhill, Dudley; Mr. E. White Wallis, London; Dr. Williams, Essex; Messrs. Waters and Co., Birmingham; Dr. Samuel Wilks, London; Messrs. White and Son, London; Dr. J. H. Whelan, H.M.S. *Racoon*; Dr. Theodore Zannger, St. Moritz, Engadine; Dr. S. C. Zavitziano, Père; Fourth Year's Student; Stocks, London; Medical, Lancs; Clerk, Devon County Asylum; M.R.C.S., London; Certainty, London; Radcliffe Infirmary, Oxford; A. B., Southsea; C. E. W., London; Borough Asylum, Nottingham; R. B., London; C. G. H; Secretary, Newport Infirmary; General Hospital, Birmingham; Woden, London; May Fly, London; F.R.C.P.; Bedford General Infirmary; Traveller.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Dobbs, Southgate; Mr. Johnson, Middlesbrough; Messrs. Giles, Schacht, and Co., Bristol; Mr. Howe, Croston; Mr. Ley, London; Messrs. Steen and Sons, Wolverhampton; Mr. Finley, Longford; Mr. Butler, Castle Donnington; Dr. Odell, Torquay; Mr. Todd, Selby; Dr. Adam, West Malling; Dr. Shiels, Dunbar; Dr. Tomson, Luton; Messrs. Waters and Co., Bournemouth; Mr. Tyte, Minchinhampton; Dr. Kelso, Southsea; Dr. Mackenzie, Southsea; Mr. Moore, Welshpool; Mr. Gray, co. Armagh; Mr. Cochrane, Wigtonshire; Mr. Anderson, Chapel-en-le-frith; Mrs. Cook, Hounslow; Mr. Law, Padiham; Dr. Humphreys, Fishguard; Dr. Rainbird, Saxilby; Dr. Barham, Torquay; Dr. Ord, Lewisham; Dr. Hinde, Banbury; Mr. George, Preston; Mr. Brown, Liverpool; Mr. Wilkes, London; Mr. Halford, London; Mr. Berridge, Loughborough; Rev. Mr. Oxford, London; Dr. Griffith, Manchester; Mr. Griffith, Rowenglass; Dr. Marshall, Manchester; Mr. Hilliard, Aylesbury; Mr. Irving, Stoke-on-Trent; Messrs. Freer, Hett, and Hett, Brigg; Dr. Warburton, Treherbert; Mr. Elliott, Moreton Hampstead; Dr. Jones, Fulham; Dr. Johnston, Longport; Mr. Thin, Edinburgh; Mr. Lockwood, Bradford; Mr. Heywood, Manchester; Mr. Griffiths, Lampeter; Dr. Jones, Penge; Mr. Skrimshire, Blaenavon; A. J. S., Lockerbie; Beta, Hornsey-lane; X. L., Tunbridge Wells; Beta, London; Honoris, London; X. Y., London; Warneford Asylum, Oxford; Medicus, London; Doctor, Southsea; Corporation of Salford; Theophilus, Aberaman; Femur, London; Rotherham Hospital; Medicus, Hull; August, London; Dallas, London; County Council of Derby; M., Clapham; Senex, Notts; Hackney Furnishing Co., London; M.D., London; C., London; Volo, Derby; Edinburgh School of Medicine; A. B. G., London; Medicus, Crewe; Curette, London; J. T., Evington; S. M., London; Mura, London; M.R.C.S., London; Poppy, London; S. G. G., London; Dorset, London; G. W., Kensington; P. H. J., London; Companion, Cheshire; T. J. C., Oldham; Alpha, London; A. B. C., London; Medicus, Margate; Bryant Co., Toronto; M., Southport; Delta, London; W. S., London; Class Rooms, Edinburgh; C, Notting-hill; 83, Wimpole-street; Medicus, Bournemouth; F. G., Selby; Yorkshire, London; D., London; A. H., Manchester; Herbert, London; Practitioner, New-cross; X. Y., London; Oculist, South Norwood.

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